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Doctor of Professional Studies
by Public Works

Context Statement

*Making the Implicit Explicit:
facilitating growth in others to realise
effective organisational change*

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M00383600

Institute for Work Based Learning
Middlesex University

April 2013

ACKNOWLEDGEMENTS

The development and submission of the public works has been an inspiration to me by highlighting the contribution to my life-long learning and to the Australian vocational education and training sector since my late adolescence.

Getting to this point has been made possible through a number of people with whom I have worked and known for quite some time. First of all the direction and identification of the innovative and well established work undertaken through Middlesex University came from Dr Malcolm Cathcart, as well as his regular checks on my progress and insights from his own experiences. Thank you, Malcolm, for your positive urging.

I would like to extend my esteemed gratitude to my energetic, patient, enthusiastic and supportive programme advisor, Dr Kate Maguire. Kate, you have been a critical factor in extracting the details of my work in a way that has been enlightening and rewarding.

Importantly, the work and the contributions were undertaken through many hours over a period of time that impacted on my capacity to fulfil my duties as father and husband to my family. Thank you for always being there, for your love and understanding and for believing in my commitment as being worthwhile.

INTRODUCTION

As educators, we learn from teaching institutions. We then practise our teaching in a range of educational settings, ideally with a mentor. We test our ability as educators through peer reviews, and, over time develop our capacity to teach others and to shape the teaching institution as part of a 'learning for life' approach.

The following context statement incorporates four public works that provide insights into personal life-long learning and the application and enhancement of the learning in the work place, the community and in a range of wider personal and social contributions. The public works are:

1. National Computer Drafting Curriculum project
2. National Quality Management
3. Australian Flexible Learning Agenda
4. Royal Life Saving Society.

The first three works were selected as they represent leading edge professional practice, in that they were innovative as an approach in the implementation of national policy in the Australian Vocational Education and Training arena. This emerging industry change agenda provided the initial foundation to develop personal capability in leadership and change management through public works at state, national and international level.

The final work represents a reflective study of change and leadership in a senior voluntary capacity at a national level for the Royal Life Saving Society Australia. This work involved development and advancement of drowning prevention strategies throughout the Commonwealth, and also internationally specifically in the Philippines.

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LIST OF ACRONYMS

ACE	Adult and Community Education
ANTA	Australian National Training Authority
AOQ	Australian Organisation for Quality
AQF	Australian Qualification Framework
AQTF	Australian Quality Training Framework
ASQA	Australian Skills Quality Authority
ATP	Adult Tertiary Preparation
AVTS	Australian Vocational Training System
BSDE	Brisbane School of Distance Education
CAD	Computer Aided Drafting/Design
CAE	Colleges of Advanced Education
CBT	Competency Based Training
DDIAE	Darling Down Institute of Advanced Education
CBA	Competency Based Assessment
DET	Department of Employment and Training
DETA	Department of Education, Training and the Arts
ETRF	Education and Training Reforms for the Future
FGI	Fabulously Great Idea
ILS	International Life Saving
ITAB	Industry Training Advisory Boards
NTB	National Training Board
NTP	National Training Packages
RLSSA	Royal Life Saving Society of Australia
RPL	Recognition of Prior Learning
RTO	Registered Training Organisation
SAT	School Based Traineeships
SQIT	Southern Queensland Institute of TAFE
SLSA	Surf Life Saving Australia
TAFE	Technical and Further Education
TEIA	Training and Education Institute of Australasia
TGA	Training dot Gov website
USQ	University of Southern Queensland
VET	Vocational Education and Training
VOCED	Vocational Education and Training Research Database
VSS	Virtual Schooling Service

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Section One Context Statement Summary

I am currently self-employed as an author, publisher and distributor of vocational education and training resources to Australian secondary schools, colleges, TAFE institutes and private training organisations (PCS Publications 2013). The business draws on my expertise and knowledge in relation to Vocational Education and Training (VET). In particular, my business activity involves the interpretation of the Australian National Training Packages, vocational qualifications, teaching and learning and online learning (PCS Educational 2013). The business has consistently had an annual turnover of between AUD 400,000 to AUD 450,000 per annum since I resigned as the Principal of the Brisbane School of Distance Education in 2006 to establish it.

Further to this primary business activity, I am a director (in accordance with the Australian Securities and Investment Commission) of a community based not-for-profit registered training organisation. In addition, apart from the ongoing business imperatives and compliance with the Australian Quality Training Framework, I facilitate recognition of prior learning and work based training for existing teachers and trainers in Australia. I would estimate the total number of people I have worked with in assisting them to obtain the Certificate IV in Training and Education to be in excess of 200. The other formal educational activity that I am currently involved with is as an advisor of masters students in the Master of Professional Studies at the University of Southern Queensland.

From a community perspective, I am heavily involved with the educational endeavours of the Royal Life Saving Society Australia in my capacity as the National Education and Training Advisor (see Appendix 27 – RLSSA Position Statement). I am also a commissioner with the International Life Saving Federation, with a primary focus and involvement with respect to the development of educational policy.

Although the public works outlined in this statement are somewhat historical, they illustrate that the application of work based learning does not occur in isolation or solely through formal learning. Organisationally, the connections

between these public works and the evolved contemporary application of the project outcomes are evident and indicative of the learning gained by the organisation as a result of these public works. Personally, the learning gained has been critical to the works highlighted through this statement and continues to be integral to my current professional and voluntary endeavours.

This context statement provides a critical reflection on my public works, which embody the integration of my informal, formal and applied learning acquired throughout my 25 years of working in vocational training in Australia, with a particular emphasis on leadership roles undertaken initially for the Technical and Further Education (TAFE) sector:

- project management in curriculum design
- quality management in vocational and general education
- managing organisational change and
- flexible blended learning.

The majority of my work has been centred in the City of Toowoomba, located in the western fringe of South-East Queensland. The city is one of the largest inland cities in Australia and is located 130 kilometres west of the state capital, Brisbane, on the Great Dividing Range. Toowoomba is the hub for business and government services throughout the Darling Downs region (Toowoomba 2012).

Through an interrogation of the public works, I explore my contribution to the impact of adult learning in the workplace, my application of situational leadership, analysis of work situations and my personal abilities to contextualise strategies and solutions in a range of senior strategic positions that I have held in both a professional and voluntary capacity and how these contributions have influenced the practice and thinking of my communities of practice.

It will also provide some clear and precise detail of the self-reflection I have engaged in to make explicit what has become for me over the years tacit or implicit knowledge.

This statement has aimed to fulfil the key criteria of doctoral level professional practice.

Highlight the ability to develop and apply significant learning in the workplace to achieve high-level organisational outcomes as specified throughout a career in vocational education and training public sector.

Section Two Unconventional schoolboy to manufacturing engineer

In looking back now, I can see that many of the experiences and changes that I had growing up paralleled what was happening to Australia internally and its response to external factors of an increasingly globalised world as it strived to carve out a strong identity and economic future with its values intact. Such things have influenced my identity formation, and I hope I have contributed in some way to helping our communities to respond positively to change and to positive refining of our identities.

The experiences that shaped me as a person prior to becoming an educator were quite different from the mainstream model of the era, which was to complete twelve years of formal schooling, enter university, graduate and begin a career.

My early upbringing in comparison to many children of Australian families at the time was quite different, in that changing schools and educational systems on a regular basis and managing it was a core feature, a defining feature of my educational experience.

Being the son of a member of the Royal Australian Air Force (RAAF), I found myself being re-located approximately every three years. We lived in Northern Queensland, Malaya, regional New South Wales (NSW), Southern Queensland and Sydney before eventually calling Southern Queensland home on my father's retirement from the RAAF. I was fifteen years of age and, as I have already stated, change was a constant factor in my early development rather than an exception, and one that impacted on my schooling experience and social, sporting and family life, as each posting brought new cultural, curriculum and socio-economic experiences.

In the general sense, the culture that I grew up in was very much about respecting authority, and it required confidence to challenge it. In my experience, confidence is bolstered when one has a sensible idea or insight; you take a risk and propose it, it is resisted then later adopted and you feel

vindicated. By way of example, while I was a trainee at teachers college I observed the process associated with the allocation of beginning teachers for their professional practicum.

The college had increasing difficulty in locating or assigning beginning teachers throughout the southeast areas of the state, i.e. Brisbane, Sunshine Coast and the Gold Coast. This was due to the high number of teacher intakes and the inability of schools to accept multiple numbers of teachers into their institutions. It was also a preference of the college lecturers to avoid travelling further than fifty kilometres from their own residence to visit the student teachers. In my view, Toowoomba, at one hundred and thirty kilometres from Brisbane and with the highest number of private secondary schools outside of the state capital and with three large state secondary schools, provided a great opportunity for student teacher placement, and was still within a days drive.

When I approached one of the lecturers with the proposal to include Toowoomba in the programme, it was rejected without any dialogue. At a subsequent meeting with the Programme Head, this suggestion again was not well received. The idea was rejected outright and he was adamant that it would not happen.

However, within the year, the college had saturated the existing school placements in the greater Brisbane area and had no other choice than to extend their region. Although I did not receive any further correspondence on the matter I felt vindicated for my insight and rationale. It was pleasing in that year to be one of the first sixteen student teachers to be placed in Toowoomba and district schools.

This insight into challenging the status quo its motivations for resistance has stayed with me and informed much of my later work in leading change initiatives. Listening to the ideas of others becomes important if I feel resistance or if I sense others feel resistance. It is worth the time and effort to rationalise what that resistance might actually be about: protecting one's own position or

comfort zone; being threatened by what change might bring; or perhaps fear of not having the new skills required to address them.

This innate characteristic to question the status quo to improve situations for more stakeholders was, on reflection, a trait that I had exhibited on many occasions as a young man and was the foundation for many of my achievements. It was never intended to be rebellious, but, rather, more a matter of taking an opportunity to question in order to learn, and was always a case of “whenever you find yourself on the side of the majority, it’s time to pause and reflect.” Mark Twain (1835-1910).

There is a strong element of life-long learning underpinning the public works illustrating the ongoing refinement of the cognitive application of my skills and knowledge in the various case studies.

The enduring influence of the formative years

The early days of education, for me, were quite exciting, enjoyable and rich. As a classic ‘baby boomer’, the eldest of five children and an ‘air force brat’ I enjoyed the challenge of a number of experiences that enabled me to embrace schooling.

Although I was born in Townsville, in far north Queensland, my schooling took place in four different locations. It commenced in regional New South Wales with kindergarten through to the end of Year Two. Years Three to Five were undertaken after a move north again to Toowoomba in South-west Queensland before returning south of the border to Richmond, in the outer western suburbs of Sydney. While moving schools can often be traumatic for children, I enjoyed these years. Adapting to these changes gave me some comfort and confidence in my abilities and developing capabilities.

The enjoyment of schooling continued into my early secondary years, evidenced by my position in the top class. This positive experience in what I came to discover was a contemporary schooling environment changed abruptly

in the next phase of my school education. It was back in Toowoomba, Queensland, where for my final, and not so enjoyable, years of secondary schooling were completed.

The state secondary school systems of New South Wales and Queensland were markedly dissimilar. Unfortunately this did not become obvious until after I had successfully negotiated with my parents that I should commence the third year (Year Ten) of secondary education in Queensland. This position was in direct conflict with the recommendations of the education advisors at the time who were of the opinion that I should commence in Year Nine. It was not easy to accept at the time that an extra year would have provided me with a more balanced position from which to consider my future career. Thinking I knew best, I operated on the basis that if I did not manage the transition I could always repeat the year. The net impact for me was to experience a paradigm shift from embracing and valuing my schooling experience to resenting it and wanting nothing to do with the school environment.

Although I survived Year Ten and continued into Year Eleven, the change in culture, philosophy and curriculum was not something to which I could assimilate. I took matters into my own hands again and negotiated my exit from school by securing an engineering apprenticeship at Southern Cross Manufacturing at the Toowoomba Foundry (a privately owned family company established in 1876). This was somewhat of an achievement as I originally applied as apprentice electrician and was informed that they were not seeking to appoint electricians, however they would like to offer me the engineering manufacturing position. Despite having no idea what the position entailed I accepted it, as a means of escaping what I had come to know as the 'tyranny' of schooling in Queensland in the early 70s. Little did I realise where this decision would take me in my later career and the enriching opportunities I would experience. At this time it would be fair to say that the educational view of the wider community was quite conservative and the general expectations were that young people should be focussed on gaining a matriculation into university.

When I came to reflect on these events later, the main learning for me from this initial range of educational experiences that I came to appreciate was that there are multiple pathways for an individual to achieve their educational objectives. This revelation enabled me to adopt a life-long approach to learning that has continued to be refined and reinforced on many occasions.

In fact it became apparent from my own experiences that “learners are in charge of their own learning and need to be guided into this role to counteract the authority-dependence created in most contemporary secondary schooling.” (Baxter Magolda 2009:4)

My initial entry into a professional career was therefore in engineering manufacturing with a large private engineering manufacturing company that employed approximately 600 people. I commenced my apprenticeship working in a production environment on a capstan lathe producing brass fittings under the direction of a person known as a Leading Hand (or Section Head). He would set the machinery, demonstrate the operation or task at hand and I would use a set of standard gauges at a pre-determined frequency to verify that the products met the actual specifications. If the manufactured item did not meet the specifications I would locate him and then he would swear and curse as he made some form of technical adjustments, and I would then continue with the task at hand.

Unlike the detailed induction and safety processes that are common practice in today's workplaces I was not told anything about the organisation or the main product/s or structure. What I knew and was told, apart from how to do tasks, were the times of start, finish, lunch and the fact that the general practice and systems for the apprentices indentured by the company were that you would be rotated every twelve weeks. This process was designed to place apprentices in different work areas as part of your workplace training and development in order to gain different experience and skills.

The majority of my actual learning was achieved through on-the-job activities learning, and through informal discussion that occurred between myself and

fellow apprentices and trades people. The formal off-the-job technical training was facilitated through intense seven-week full-time attendance at the college for Technical and Further Education (TAFE).

Needless to say, apart from the block release technical education and training undertaken at the local TAFE college, I think it took me two years of work experience to actually begin to understand what the business was about and how each section that I experienced through the rotation system contributed to the final product and to the success of the company (Appendix 1 – Engineering Trade Certificate).

Once my development and understanding began in earnest I recognised further opportunities for personal growth through further education and training that directly related to my employment situation.

On reflection, this was probably the start of my belief in work based learning and in the benefit of life-long learning relevant to one's vocational interest. It would be reasonable to suggest that until this experience I was a person who felt that "the word 'learning' triggered a long list of 'negative' and 'wounded' feelings and memories". (Rylatt 2000: 56)

The change and the enthusiasm gained initially through a vocational choice to escape mainstream education was instrumental in enabling me to not remain inhibited by my negative formal education experience or to prevent me from achieving my true potential. While refining my trade skills in the more advanced area of toolmaking, I enrolled as a student with what was once known as the Technical Correspondence School (currently the Open Learning Institute of TAFE) in what was known as a post trade qualification, Advanced Certificate in Mechanical Drafting (Appendix 2 – Advanced Certificate of Drafting).

This initiative proved to be a sound decision, as it provided me with learning that complemented my understanding of engineering and manufacturing processes from the workplace. It was also timely, as there was an opportunity on offer for advancement to a position in the Tool Design Drafting Office to

design machine tools associated with the production of the agricultural equipment throughout the Southern Cross organisation, and the actual production planning processes in a large complex manufacturing environment.

It would be fair to say that this achievement provided the most important learning experience I enjoyed in the world of manufacturing (and some life skills) as I was able to learn about the entire process from design, planning, production and manufacturing processes, quality management and control, as well as the broader skills of working in a team, problem solving and conflict management and negotiation skills.

An actual case in point in relation to conflict management and workplace analysis was the realisation, after I had been in the position for approximately two months, that my immediate supervisor (a senior engineer) was actually discrediting my performance and work to the senior management of the company; he wanted to appoint another individual that he had identified in the company. Any doubt I had about this information was dismissed when a particular piece of misinformation pertaining to some dimensions on a sketch were attributed to me. A senior colleague in the manufacturing area made this known to me. The challenge, in my view, was to determine a strategy to continue working in the area that I was enjoying, despite being given the least desirable projects. I needed to be pragmatic, and I soon learned something very important about pragmatism: it requires one to know more about the whole environment in which one is situated and which one needs to navigate. I had not been pragmatic as a teenager in choosing my schools. I had not really been pragmatic about joining the company; that was more about luck and being in the right place at the right time. I had been pragmatic about further training because I made sure I kept myself informed about opportunities. To be pragmatic in this new situation needed more than the technical training and experience that I'd had up to this point. Being pragmatic would require me to enter this new territory of workplace politics far better equipped. Though I had already experienced the independence created by applying pragmatic techniques in identifying problems, gathering and organising relevant information, I was not sure how to proceed. (Mumford 2006:131)

After speaking with other trusted senior colleagues, I spent some time analysing the allocation of work and the best option for dealing with the conflict. It became obvious that the work in the Tool Design Drafting Office was assigned through one of two processes. The first involved the continuous improvement generated as a result of problems associated with any tooling, processes or equipment utilised in the manufacture of the companies agricultural equipment. The second allocation process resulted through an extension of the design of new products and the associated work involved in the design of suitable tooling, and a detailed production planning process for the manufacture of the actual component/s.

The key strategy that I engaged was based on the crucial area of operations revolving around the actual production process. If I prioritised any emergent issues that were brought to my attention and dealt with these expediently, I would be able to increase my worth to the company. I would learn a great deal more by taking this approach as it would also mean engaging with a wider cross-section of personnel involved in the manufacturing process.

The approach proved beneficial. I was still able to maintain the regularly assigned tasks generated as part of the quality control processes for me as the junior draftsman in the Tool Design Drafting Office while extending my ability by applied problem solving generated as a result of emergent issues. This was certainly an approach consistent with Mumford's analysis of a 'pragmatic' pathway that "is based on the ability to craft viable solutions to the problems posed by crisis or change." When my efforts and contribution were recognised by the senior management team at a company production meeting, the working relationship between the head engineer and myself changed markedly. I was given more opportunities and greater freedom, up until the time I decided that I wanted to pursue a slightly different direction, as a teacher. (2006:273)

This experience provided a key learning in my career: that it is critical to 'know the business that you are in'. It is imperative to understand what the key objectives of the business are and how one contributes to the success of the

organisation, to identify and maintain networks of people and to know the products or services of the business. This knowledge helps the thinking, planning and execution of strategies. This knowledge is what helps one to be pragmatic.

In addition to my personal approaches to workplace challenges, the notion of a mentor (though not formalised at this stage) was another aspect of my ongoing development and personal support system. It would have been more difficult to achieve what I did without the informal mentoring of senior colleagues.

These are some of the learning opportunities and experiences that occurred in my past and helped to shape my thinking. “Every experience is a moving force. Its value can be judged on the ground of what it moves toward and into”. (Dewey 1938:1)

My life has had regular change since my birth – countries, cities, schooling, and friends – so change is a constant, not an exception. I embrace change, but recognise it needs to be well thought out and of benefit to the majority of stakeholders. To achieve buy-in from stakeholders it is necessary to look at what the components of resistance are and how they can be addressed appropriately. Often people do not have enough information. Often as human beings we need time to adapt. I recognise that I always see change as exciting and full of opportunities, but acknowledge that this is not the attitude of everyone. Throughout the public works, what has been key to the success of my leadership is to find ways to help others not to be afraid of change, through listening to and addressing their concerns at both a personal and professional level.

Manufacturing engineer to educator

In the early eighties, increased competition from Asia was resulting in significant downturn in manufacturing in Australia. As the primary income generator with a young family this was a major concern for me, as staff were being made redundant and the employment security that had once been associated with one of the largest private manufacturing companies in the nation was rapidly diminishing.

An allied area of employment that would recognise my qualifications and industry capacity was in the field of technical and further education. The state government was offering scholarships for appropriately qualified and experienced people to undertake an undergraduate teaching qualification.

The fact that I had successfully engaged in further technical study through arguably one of the most challenging educational pedagogies, that of distance education, supplied a degree of motivation, and the confidence that I could aspire to higher education as a mature student.

Coincidentally, the decision to pursue a career in education brought me back to an earlier interest in life saving and an opportunity to enhance my value as a teacher through a voluntary option at Griffith University (formerly Brisbane College of Advanced Education) by undertaking a Royal Life Saving Society Australia (RLSSA) Bronze Medallion and the RLSSA Instructor/Examiner qualification.

On the completion of the Diploma in Teaching (Secondary) in 1986 (see Appendix 3 – Diploma of Teaching), I sought a position through the recognised recruitment and selection process and applied for a teaching position with Queensland Education Department. As I was suitably qualified and experienced in the engineering area, I also submitted an application with the Division of Technical and Further Education (within the same department). As a result, I was faced with choosing between a position as a Manual Arts teacher at a regional public secondary school and a position as a Technical Teacher at

a regional TAFE college. This was an interesting dilemma given my own experiences as a learner in both systems. I found myself questioning, which direction my future educational career should take. My first option was one that placed emphasis on academic achievement on a formal education setting. Option two focussed on technical ability and skills. This dilemma certainly led to some reflection on my earlier schooling experience, from which I had escaped somewhat as a 'wounded learner', and the subsequent vocational education and workplace learning that I had developed through 10 years in the engineering manufacturing industry. (Rylatt 2000:56)

In the end it was not too difficult a decision. In addition to my own educational background experiences, I had sampled the general education system through my practical teaching experiences within the secondary sector, and had found the general lack of regard towards technical education and training disconcerting; to me, a situation that contradicts what is in such need in our regional areas and in our changing economic climate. These considerations shaped my decision to stay with what I had come to regard as my strength, and which also had the potential to contribute to Australia's future.

At that time, and to some extent today, the general situation in education was based on the traditional view by many educators that school is some type of social process that enables those with the appropriate academic ability to progress to the next level of education available through the higher education sector. For them, any other programme that does not contribute to this outcome is not as important, and certainly this is the view in respect to technical education.

This situation was, and still is, one not remotely aligned to my own view of the benefits of a life-long learning attitude. Learning is also about developing one's self through doing, and constructing an identity as an individual and a member of a group through all kinds of knowledge, including that which arises out of meeting challenges in one's family and community as well as in one's career. Having practical skills in creating, making and doing is about being able to

contribute to all areas of your life and community and, importantly, feeling that you are useful.

It was obvious to me as a teacher, having entered the technical and further education system through the general education pre-service programme, that there was still much for me to learn, and that one of the best options for me was to continue my formal education. I subsequently enrolled in a post-graduate Bachelor of Education programme (Appendix 4 – Bachelor of Education).

The Darling Downs Institute of Advanced Education (now the University of Southern Queensland) had a programme that provided sufficient flexibility and options for technical teachers, even though the actual knowledge base in the institution in respect to vocational education and training was not strong. As there were approximately six or so colleagues taking the same pathway, it was a relatively easy decision in the end to join with them in pursuing this career milestone. The flexibility of the course was a major advantage; our group had the opportunity to negotiate the various assignment topics that worked well with our ability to translate an activity to a particular work based or technical education outcome.

I valued this educational opportunity for many reasons, including the chance to complement my initial two years of work experience as an educator with the curriculum field in human resource management and organisational development, among other topics. In a sense, I could not stop learning. I wanted to keep growing, so I enrolled in the Master of Education with the University of Southern Queensland and added some business units, based on the premise that I did not want to be restricted in my future planning and development opportunities (See Appendix 5 – Master of Education). I was increasingly aware that future career paths would be requiring transferable skills and knowledge of other disciplines. I had learned on the job what pragmatism was, so if I wanted to be pragmatic in managing change, whether imposed or chosen, I would have to know more than technical education. I would need to know about change management, information and

communication technologies in education and human resource management. Some reading at the time by Tom Peters was very inspiring. This author highlighted the positive aspects of recognising opportunities that can be achieved by embracing change, as opposed to negativity (Peters 1997).

All of these influences on my thinking and learning are what I brought into my public works, with a clear focus on the Australian vocational education and training system (VET) and its iterations over the years.

The next section gives a brief history of TAFE to more clearly highlight where my public works fit into this major education sector in Australia.

Section Three Technical Education

The provision of vocational education and training in Queensland commenced through the technical college system in the late nineteenth century in response to a relatively decentralised development in regional areas and the three major port cities of Townsville, Rockhampton and Brisbane.

There was also a major foundry established in Toowoomba through the Griffith family (my former employer), and Walker Brothers operated a large engineering facility in Maryborough. The initial workforce came from a skilled migrant population and there were limited opportunities for technical training or apprenticeships for the growing population, as the migrant workforce possessed the necessary skills and knowledge. The initial colleges that were established focussed predominately on trade type training similar to the Mechanics' Institute developed throughout the United Kingdom.(Education Queensland 2012)

In the later half of the twentieth century there were more women entering the workforce and a major review of the technical education system was undertaken with the release of the Kangan Report (1974). This report highlighted the need to broaden the focus beyond skilled labour. The resulting creation of Technical and Further Education (TAFE) and some new initiatives introduced into vocational areas such as business administration, hairdressing, hospitality and community services began to alter the male bastion of technical education.

The development of TAFE and the development of institutes of technology within the broader education system in Australia consolidated and added another tier to the general academic education pathway of primary and secondary schooling, universities and institutes of technology.

The impact of the formation of TAFE, with an emphasis on the development of the individual within the societal context, was the beginning of the conflict within the sector. This new approach contradicted the more traditional view that TAFE

existed to support the economic development of industry. Ryan (2002) as cited in McMillan (2002:8) identified the TAFE system as being torn between two poles, “one pole sees vocational education as primarily an instrument of economic development with a primary concern to meet the labour needs of industry, while the other pole views vocational education as primarily student centred, more aligned to a general education philosophy that encompasses goals of individual self-development and the creation of a more equitable society.”

Nevertheless, the TAFE system continued to grow and develop significantly through the eighties and then into the nineties, with increased policy development occurring at a national as well as a state level. It was a period that was “characterised by increasing dominance of economic policy in the education sector, a shift to demand-driven provision, greater industry ownership and involvement, the creation of the training market and the implementation of competency based training.” (McMillan 2007:7)

In the 1990s, the TAFE system or, more broadly, the Vocational Education and Training (VET) sector experienced an environment of rapid and significant change. It is important to understand that during this period there were a number of significant change agendas impacting simultaneously.

Table1 Summary of Changes impacting Vocational Education and Training

1	The introduction of national training curriculum in competency based training and assessment format across all industry areas in the early nineties
2	The establishment of sixteen TAFE institutes (from eighty-four colleges) in Queensland
3	The development of quality assurance systems in the provision of VET throughout Queensland in 1994
4	A funding shift from the public provider monopoly to the User Choice (apprentice and trainee) and competitive tendering for VET funding in 1997
5	An increase in the number of private training providers in Queensland from less than a hundred to more than fifteen hundred within three years came with the Competitive Funding initiative
6	The introduction in 1998 of VET in Schools to increase prospects for young people enrolled in the general education sector

The level of change impacting from the early nineties in the VET environment is best illustrated by the longevity of those initiatives that remain to this day, albeit with some modification:

- the national competency-based curriculum, which has evolved into national training packages (competency-based);
- the ISO9000 Quality Assurance, which has transformed into a VET specific system known as the Australian Quality Training Framework (AQTF);and
- the continued growth in the number of private providers nationally.

With the increasing developments within the wider VET sector, the actual funding of TAFE continues to be somewhat controversial. It is a mixture of direct grant funding from government to deliver political and/or industrial priorities competitive market funds through user choice for the structured training market for apprentices and trainees, competitive tendering for emerging markets to respond to economic drivers and fee-for-service programmes.

One emerging development of late is the situation where some TAFE institutes are offering university undergraduate qualifications. In the west of the country,

some have become polytechnics and a few more TAFEs have been incorporated by, or merged into, universities.

The Queensland government approach to VET has been to move with the national agenda from the outset, and in many instances it has been, and still is, at the forefront of the VET agendas. For example, when the national competency based training and assessment curriculum was introduced, the Queensland government adopted the new curriculum without hesitation, as it carried the endorsement of industry.

A similar approach was taken with the introduction of the competitive funding agenda, where almost 100% of the funding allocation was reduced to 55-60%, with the rest having to be contested in the public VET market.

Some of the other states in the country were much more conservative, and chose to partially introduce the national agendas or through a staged approach. While the nation's state and territories shared similar language and understanding of the national VET agenda, the Queensland experience, in my view, was much more radical in comparison to the other TAFE public providers.

Alignment of Higher Education and the Workplace

The benefits of higher education studies are something that has been personally rewarding and has generally linked directly to my career opportunities in managing the impact of policy implementation.

In particular, the management and leadership of change was a critical need in the TAFE environment. Yet there was very little specific leadership displayed throughout the organisation in response to the implementation of national competency based training and assessment, increased growth in competition for public funding from the private training sector, and learning approaches that are more flexible and student centred.

The first significant opportunity to enhance my own career development and learning in the TAFE sector came with the offer to project manage a National Curriculum Project in Computer Aided Drafting under the Metals and Engineering industry structural efficiency model, in the early nineties.

This offer was made to me as a result of my involvement in leading the teaching of Computer Aided Drafting/Design at the Toowoomba College of TAFE and as a regional representative to an industry consultation forum, coming to the attention of the Manager of the Engineering Curriculum for TAFE Queensland. At the time, it was quite an achievement to be selected for this task; apart from being one of the first competency based training projects secured in Queensland, it was the first ever offered to an individual working within a regional college and external to the Brisbane based TAFE Queensland Curriculum Unit.

This was definitely an honour. However, with the honour came the responsibility to ensure the project would be a success. So, before all of the elements of the actual project were even confirmed, I enrolled in a three-day Project Management course through the department's Professional Development Unit (see Appendix 6 – Project Management Certificate). As well, I taught myself how to use the Microsoft Project Management software and sourced as much information as I could on competency based training and assessment from Australia and the United Kingdom; specifically, the Scottish Vocational System. It was a steep learning curve.

The project team members were appointed by each of the respective participating state and territory training authorities. As these members were assigned without any reference to me as the convenor, a potentially challenging leadership prospect was created. This challenge was something that I considered very carefully.

As the curriculum area was relevant to a broader array of industries than metal and engineering, the team consisted of representatives from clothing and

textiles, building and construction, metal and engineering, and architectural drafting.

Differing views and priorities from each of the respective delegates certainly created some tension and debate during the twelve-month project. However, despite this, the strategies to achieve the outcome described in the project brief were endorsed and utilised successfully. Ultimately, the diverse nature of the delegates was of a greater benefit to the project than detrimental to it. The end product was developed without any bias towards any particular discipline and, most importantly, it was done with an emphasis on the actual specifics of computer aided drafting/design. This process was not unlike teaching someone the necessary skills to use a word processor such as WordPerfect and then as a result of a change to information technology policy, software or employment having to transition to an alternative word processing package such as Microsoft Word and applying transferable skills.

The strategies that I engaged at the time were to provide processes that would enable and encourage all members to provide input into the project. Not least of these was the methodology process known as Dacum (see Appendix 7 – Dacum Process), which had originally been developed through the military. (Further details on this public work will be covered in more detail in Public Work 1)

Despite the enormous amounts of resources invested subsequent to this project, the vocational education and training (VET) system certainly obtained value for money, as the units of competency were still endorsed until a revision completed in 2012. At the time, the completed project cost a total of AUD 45,000 and was achieved by using the public TAFE sector, through seconding the necessary personnel, and completed in twelve months. In comparison, a similar project today can cost upwards of AUD 250,000 by engaging external consultancies and government business units, then only achieve a shelf life of approximately three to five years.

Section Four Introduction to Public Works

While many of the public works selected have a significant change component underpinning them, in my view the true position is not necessarily about the structure of organisational change models but about developing the people who work in the organisation, encouraging them to grow and learn from their experience to the benefit to the community as the end user of the service/s.

The notion of life-long learning is something that can, and does, underpin the development of individuals within our society. “To survive and thrive in modern frenzied change, everybody needs a learning approach full of enterprise and creativity” and “practices should include finding good mentors, engaging in self-initiated discovery, tapping into the riches of the Internet, participating in special projects and exploring new possibilities and scenarios.” (Rylatt 2000:28)

The public works that I have selected for this context statement provide an insight into my professional developmental journey. This journey began with me defining my leadership style and how this could be applied to achieve my vocational goals. The journey continued with me embracing projects and activities that were essentially about managing and leading change. It then directed my work towards the domain of blended and flexible learning, incorporating technology, as it has increasingly become part of mainstream educational delivery.

Interestingly, my notion of leadership in the public service environment changed as I reflected on the activities and impact that I have had throughout my career, through what I describe as informal leadership; that is, leadership not based on a position of authority.

In my view, there was more freedom to explore and analyse situations, negotiate with stakeholders and develop strategies without the barriers created as a consequence of any position I have held. This is based on the observation that even though it is possible to achieve outcomes when leading from a position of authority, a great deal of intuition about ‘genuine’ discourse is

required, as there is a tendency for people in subordinate roles to offer input which they believe the authority figure wishes to hear rather than giving a true opinion. In addition, the authority figure often has the constant challenge that arises as a consequence of the political implications, realities and interferences from government officials as a potential barrier to achieving the best possible outcome for stakeholders.

One of the key learnings that, after reflection, I can more easily articulate is my style of leadership, which has been most influential in my efforts to encourage people to explore opportunities and present arguments to improve or develop outcomes that will benefit stakeholders without status or power being a barrier to achieving their goals.

Public Work One Computer Aided Drafting National Curriculum

In the late eighties, the national vocational education and training system was generating a curriculum focus that incorporated competency based training (CBT) and assessment (CBA). This move brought a strong emphasis on industry standards “as a response to the perceived inadequacy of Australia’s skill formation system to meet the needs of industry in an increasingly competitive international environment.” (Smith 1999:106)

The implementation of the national competency based training agenda created tension and confusion within the TAFE system. Previously, the respective states and territories managed the development of vocational education and training curriculum through teaching staff with varying levels of industry contribution. “Industry competency standards bodies were responsible, initially with the aid of the National Training Board (NTB), for drawing up competency standards for all industries. These competency standards described the competencies which workers in that industry should possess; a few were cross-industry and a small number were enterprise-specific.” (Smith 1999:107)

In 1991, the national computer aided drafting project was instigated following a submission from a Queensland CAD Curriculum Advisory Committee (within TAFE Queensland) to the Australian Committee for Training Curriculum (ACTRAC) to address a situation of uncoordinated development in a rapidly growing area of technology-based innovation. The actual submission was coordinated through the Manager of the Engineering Curriculum section. He approached me to take on the role of National Convenor for the project prior to the proposal being lodged (see Appendix 8 – National CAD Project Letters).

I had been involved as an active member of the Queensland committee at the time, though I was not involved in preparing the submission to ATRAC.

The actual project was premised on being a cross-industry initiative to support work being undertaken through the Metals and Engineering industry (see Appendix 8 – National CAD Project Letters).

At the time, it was a requirement to establish a national project group with a representative from each state and territory in the nation, and the Curriculum Manager, through his networks, instigated this invitation. My role was deemed to be a part-time effort, which required release from my teaching position by the college, and I was expected to focus on the actual project activity for one day a week.

Table 2 Computer Aided Drafting Curriculum Project Objectives

1	To investigate existing TAFE programmes in computer aided drafting (CAD) at three levels of basic operator, advanced operator with industry specific skills and a systems manager
2	To identify industry skills and needs for training at the identified three levels
3	To investigate and develop course structure which integrate manual drafting, broad technical skills and management skills in a modular format in order to achieve vocational outcomes

The Curriculum Manager could not (or would not) expand on the reason for choosing me to undertake this important project other than to indicate his commitment to up-skilling people in TAFE colleges using curriculum initiatives. Personally, it provided opportunities to learn more about the competency based effort on the national scale, and this was an invaluable learning opportunity in itself. In preparation for the initial work that I undertook with the National Curriculum, I felt that I needed to be armed with some knowledge that would provide me with a suitable framework for engaging with people from a range of backgrounds and experience.

In fact this public work motivated me to question the theoretical concepts and models of leadership and project management that existed in order for me to be able to plan my own approach to the public work. Apart from some generic university studies, I had no specific project management and leadership expertise.

The only connection between my teaching role and the offer to undertake this project was my work to introduce computer aided drafting to my own college. This had involved developing a strong business case and presenting it to

senior management. I assumed this was at least partially the basis for my selection for the role.

Given that the focus of my studies and work up to the time of this project was essentially as a teacher, this was an opportunity to develop my own learning. In order to achieve the project objectives, I felt that I would need to further develop my skills to undertake a project at this level. Fortunately, I was aware that the TAFE Professional Development Unit was offering an intense workshop based on the Situational Leadership II Model (see Appendix 9 – Situational Leadership II Certificate) by Ken Blanchard (see Figure 1). This enabled me to consider the project, my role and position in it, and the team of people I might be working with on the project.

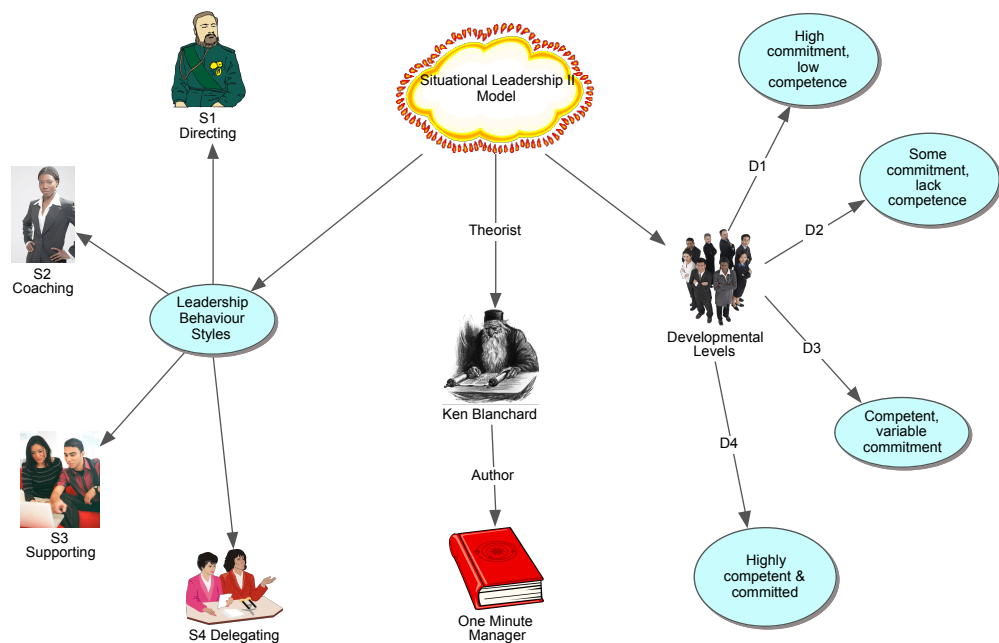


Figure 1 Situational Leadership II Model

In analysing the leadership behavioural styles through the workshop, I was able to explore the range of leadership behaviours from:

- S1 Directing
- S2 Coaching

S3 Supporting

S4 Delegating

My personal assessment of my leader style was that I am not a dictator type (S1). Certainly I had witnessed numerous role models within the TAFE system that I believe would have subscribed to this style.

The workshop also revealed to me that I was not comfortable with delegating responsibility to others (S4), but that I was more inclined towards a coaching role (S2). Complementing this behaviour, and depending on the circumstances, there was also an affinity to promote input of ideas to encourage participation (S3) by individuals.

Interestingly, early leadership development work was something that I felt comfortable with at the time and which has featured extensively throughout many initiatives that I have been involved with, in a range of applications.

The other half of the Situational Leadership Model focussed on understanding what is referred to as the Developmental Level of the people whose behaviour we are attempting to influence as leaders. The four levels are:

D1 High commitment with low competence

D2 Some commitment, though a lack of competence

D3 Competent individual with variable level of commitment

D4 Highly competent and committed individual

The first challenge in the National Curriculum Project was developing an approach that would enable me to engage with the respective individuals and incorporate their existing expertise, or add to it in a constructive manner, to achieve the project outcomes. This objective was complicated by the fact that I was thirty-four years of age at the time and much younger than most of the project team members. I lacked formal authority in the TAFE system; whereas my experience was from a regional TAFE college with no significant industry

links, some of the project team members were acknowledged experts in their area of teaching.

It is fair to state that the members of the project team were part of a large bureaucratic public organisation that held some traditional views about leadership. Leaders in the TAFE sector were essentially male, and their characteristics were founded on what Bradford and Cohen (1998) describe as heroic leadership, involving people who:

- know more than anyone else what is going on in the company, in his or her department, or in the market-place of customers, competitors and suppliers
- have greater technical expertise than any subordinate
- are able to solve any problem faster and/or better than anyone in the organisation
- take primary responsibility for everything that the organisation or the department do or fail to do. (Bradford and Cohen 1998: XVI)

I certainly did not believe I was of the heroic leadership type, nor did I subscribe to this being the most useful style to take us into the future. However, it was a style very prevalent in our education culture at the time and I had to find a way to manage it. I got busy reading the work of Bradford and Cohen (1998), Tom Peters (1997), Michael Marquardt (1996), Dough Stace and Dexter Dunphy (2000) and reflecting on the importance of me being congruent. I realised if I tried to 'do' leadership as a technique not congruent with who I am, I would not be able to sustain it and gain the trust of the participants in the project.

I started by making an individual approach to each person nominated by his or her respective authority. The first contact was through email, to introduce

myself and to share the project overview as well as the names and contact details of each member of the team. I invited them to respond with any particular information that they had from their own jurisdiction in relation to computer aided drafting. My idea was to encourage some sharing from each member as a means of building some rapport and understanding of the situation across the country.

One of the delegates contacted me by telephone to indicate that he was not happy with the project being convened through Queensland TAFE, as he felt that he had significant more expertise and capability to be the Project Convenor. I explained that the project was allocated in this manner as a result of a proposal submitted to ACTRAC through the Queensland TAFE system and that it would be unlikely that there would be any change to the role. He indicated that he would be withdrawing from any involvement. While I accepted his position, I reiterated that any further comments should be directed to his own TAFE unit, or manager, as they would have nominated him for the project.

This situation was not unexpected. Though he had a high profile and much experience, these were not necessarily in the development of competency based training, and this position was confirmed, and held, by the Curriculum Manager in the TAFE Queensland state office.

The project budget allocation provided for a number of teleconferences and for two physical meetings to be conducted over the nine month timeline. The first workshop was held in Brisbane, and this meeting was used to table existing courses and curriculum from each of the state and territory TAFEs. There was no allocation of time for the respective delegates, which meant that as well as their time for participating in meetings and reviewing any documents they also needed to negotiate with their respective organisation for any other resourcing assistance.

Next I set about engaging with them about their backgrounds and their broad objectives in respect to the specific industry group with which they were aligned, whether architecture, mechanical, building and construction, fashion or

manufacturing. This approach provided some common ground to begin the process.

The other key communication approach was to share information about the project objectives, timeliness, expectations and methodology, and how best to utilise our collective time at the first meeting in Brisbane in order to begin the process of developing a curriculum.

Interestingly, the team of people nominated were representative across the Situational Leadership spectrum of D1 to D4, and the commitment to the project and individual technical competence with respect to CAD was high. The few who were resistant were able to share that their lack of commitment to the project was due to their belief that what they were involved in was already good practice and should be adopted by the rest of the country. This was an issue I had considered previously when thinking of resistance to change; that is, in some applications change is perceived as a criticism of what people have been doing and that leaders are taking a deficit approach rather than one that “is concerned with drawing out what works for people and moving towards a shared vision” (Chu 2009:227).

While the deficit approach to leadership had been the prevalent style in the TAFE system, the application of the Appreciative Inquiry (AI) Model fitted more closely my own leadership characteristics. As Chu experienced with her work in tertiary education, “the appreciative principles of AI (Discovery, Dream, Design and Destiny), are concerned with capturing the positive stories, the successes of individuals and groups, and these principles have proved their value in transforming people.” (2009:228)

This approach was highlighted on the first day of our national workshop when each of the team was able to present their own curriculum, in particular those aspects that they felt worked well.

The project team had a range of industry backgrounds and expertise in the teaching and learning of Computer Aided Drafting. However, their competence

in developing the curriculum was not high. I saw this as an opportunity to engage them in developing a solution. The lack of applied curriculum development expertise was also one of my own challenges.

The Curriculum Manager from the Strategic Centre in the capital, Brisbane, suggested I engage an individual with an appropriate level of curriculum development expertise. The autonomy that I was given to manage the budget and work through the issues was quite refreshing, allowing me to be pragmatic. While an expert in curriculum was easily identified and engaged for the project, her knowledge on TAFE curriculum was lacking. I possessed this relevant knowledge and we worked collaboratively to find an appropriate model. Together, we identified the DACUM method as most suitable.

This model recognises and encourages expert knowledge, places an emphasis on work related tasks (which was a positive for competency based training) and embraces the knowledge, tools and attitudes that workers require for successful performance. It was a model that I knew would encourage the team, because it had a strong focus on work related tasks and the development of expert knowledge, and characteristics that I was keen to embrace within the group.

The limited budget meant that we were not in a position to undertake widespread industry consultation on the topic of computer aided drafting curriculum. The solution that was presented through the TAFE Curriculum Manager was to utilise a broader industry group that was already established in an allied vocational area as the reference group. The Curriculum Consultant was able to assist in undertaking industry research through the industry group to inform the development model and to review the project outcomes of the project team's work.

Through this approach, we realised a strong capacity to engage in an analysis of the skills and knowledge required of a person with the necessary industry knowledge to apply computer aided drafting (CAD) through a generic series of training units that could be utilised across broad industry applications. The

strategic ace that I had up my sleeve was that the approach was defensible due to the make up the project team and that the final project outcomes would be endorsed through an industry advisory board.

Each member of the project team was required to present the draft curriculum outcomes to their respective state and territory authorities and/or industry groups in order to gain feedback and/or suggested changes for the second of the national workshops.

Between the two meetings, I presented the draft options to various industry groups, and at a national conference, as a means of being able to contribute other views and comments. There were three key considerations that were expressed in presenting the draft curriculum to the various stakeholders.

Table 3 Curriculum Considerations

1	It had to be written in generic terms, in relation to the software, hardware and the discipline that can apply it
2	It satisfied three distinct skill levels for basic CAD operator, advanced CAD operator and a CAD system coordinator
3	The modules could be incorporated into qualifications under the Australia Qualification Framework

The completed curriculum that was developed as a result of the two workshops by the project team and subsequently endorsed through the industry reference group realised three modules for each of the three levels of vocational competency (see Appendix 10 – Computer Aided Drafting Report). These modules were:

- Basic CAD Operator – Provide learners with distinct outcomes on Computers and their Application, Drawing Interpretation and Computer Aided Drafting 1.
- Advanced CAD Operator – Provide learners with advanced techniques in the production of CAD drawings, basic customisation techniques and the application of basic three-dimensional techniques.

- CAD System Coordinator – Provide learners with the necessary skills and knowledge to manage CAD systems in the workplace, establish system protocols and applications in the work environment and the ability to provide coordination of the various work units to achieve the business outcomes.

Two other units were also developed. While these were determined to be optional, they were applicable for specific demands associated with industry interest in three-dimensional drawing and for drafting related enterprises that might be considering the application of customising CAD software to better support their own enterprise environment (see Appendix 11 – Computer Aided Drafting Modules).

A total of eleven units were endorsed and implemented throughout the national competency system. These remained virtually unchanged until the release of a revised qualification system in 2012, when the eleven original units were replaced with twenty-five drafting units of competency (see Appendix 12 – Mapping Information for CAD Drafting Units). This has now provided a distinct and specific pathway qualification for CAD draftees to a Certificate IV level under the Australian Qualifications Framework. (Australian Qualifications Framework 2013)

To the credit of all involved in the project, the final product was completed on time and within the assigned budget. Certainly its success was the basis for further work to be coordinated and distributed to experienced TAFE staff in a range of vocational areas.

Learning and Reflection

The entire process, involving some specific professional development and working with other professional educators in planning strategies and processes, was a satisfying experience. It reinforced the importance of building networks and relationships with key personnel to achieve a specific goal. The

work certainly indicated to me that there were many opportunities within the TAFE sector to explore and to develop. This project provided an empowering insight into the potential that the organisation provided for a career in education.

Through the exploration of leadership styles with the Professional Development Branch I was able to determine that I did not fit the autocratic leadership style that was so evident at the time. This was an important consideration when working with others on the project, and confirmed for me that “there is an intimate connection between what followers do, and how leaders act”. (Bradford and Cohen 1998:7)

On reflection, the people I worked with shared a similar objective, providing the appropriate strategy and facilitation to encourage their input and ownership of the final product of our work. Both the project process and outcomes were highly valued by all of us.

I was contacted approximately twelve months after the project was completed and interviewed by a curriculum officer to enquire how I managed to achieve the project outcomes, as they had experienced some degree of resistance and demands for higher levels of resourcing for subsequent national curriculum projects from TAFE personnel.

In my account of the project I explained that the key component, in my view, was that the project was of a critical nature and the onus was on me personally to deliver the outcomes on behalf of the Queensland TAFE system. Although this position is viewed by some commentators, such as Bradford and Cohen (1998), as reverting to the traditional leadership style, the reality is that the government bureaucratic system is structured on the premise that an individual has to be accountable and responsible, which is not something totally foreign to a pragmatic individual such as myself. As a consequence, I spent a great deal of my own time working on the project in order to complete it, illustrating the pragmatic approach I take to resolve issues. Apparently, this contribution of

personal time was not something that subsequent project managers were willing to give so freely.

At the time (and to a large degree today) my view was that I was engaged due to my professional capacity as an educator, that as a professional the work needed to be completed, and that as my name was attached to the project, I would do whatever was needed to achieve the final outcome. In many ways it was not a great deal different to having to undertake work at home in order to prepare my teaching programme, when it was difficult to apply the necessary time at the college.

Given the various views of leadership, this specific characteristic tends to exemplify what Bradford and Cohen (1998:22) describe as heroic leadership, as it is an example of me taking “responsibility for everything that the organisation or the department did or failed to do”; or, in this case, the project team.

Though “for all leaders, a legitimate part of their role is to serve as the symbolic figurehead, representing the organisation to the world.” (Bradford and Cohen 1998:xvii)

I am proud that this public work has stood the test of time. The units that were developed in 1992 have remained, essentially, in their original format since the release and have only recently been modified to reflect some of the current advances in technology and the terminology associated with units of competency through the Training Package process. (Manufacturing Skills Australia 2012)

The most significant change has been to develop a dedicated qualification under the Australian Qualification Framework for people working or seeking employment as a drafts person with CAD capabilities. This change is consistent with the broader aspects of the Australian Vocational Education and Training (VET) system to develop vocational qualifications that will articulate into higher qualifications, one of the more positive aspects of the Australian VET system.

The project provided some valuable learning and skills development for me in relation to working with people, leadership, negotiating, presentation, project planning and management and intervention.

My unexpected learning was the new knowledge about the vocational education and training system and how the national agenda impacted throughout the TAFE network. This was something that I had not considered when accepting the opportunity. In addition, the project was a critical foundation for advancing myself in other roles and positions, which I have undertaken subsequently.

Importantly for me, this work was instrumental in providing me with the confidence to step forward to undertake further activities that built on this initial work.

It also highlighted the valuable learning that can be derived from involvement in work based initiatives that are external to your primary role in an organisation. Though the irony is that although TAFE is viewed as one of the primary providers of vocational education and training it does not have a methodology for incorporating or recognising work based activities or learning for staff.

It provided me with distinct skills and knowledge that I was able to apply in the areas of project management, leadership and pragmatism, and provided confidence in my own ability. It also ignited a strong desire to undertake other roles that would enable me to learn and develop in the workplace.

Public Work Two Quality Management for Regional TAFE Colleges

In 1994, the Queensland State Government determined that all government agencies would be required to access suppliers and purchases from organisations that were assessed as accredited to Quality Management Systems AS 3900 series (equivalent to ISO 9000 series). The certification had to be via a 2nd party or 3rd party accrediting body, and as a consequence business and industry applied pressure to the government to ensure that they, as a government, also had to comply with their own policy in supplying services and products to the public and to private enterprise.

The prospect of applying a quality assurance (QA) system to education and training that had essentially emerged from a manufacturing base was quite a challenge for many in the TAFE sector at the time. It was probably not even imagined by the American quality champions who emerged as part of the American effort in Japan following World War II. Quality leaders such as W. Edwards Deming and Joseph Juran who applied their expertise of the manufacturing world to establish and re-build the Japanese economy certainly had prescribed how their approach would, or could, spread to more social endeavours, such as education and training. (Landesberg 1999)

However, given my own experience in the National Curriculum competency based training and the knowledge that I had gained in relation to the Australian Quality Framework (AQF), as well as my previous experience working with quality control and improvement activities through my industry experience with Southern Cross Manufacturing, I was very keen to accept another work based project, at this time; specifically, the implementation of the QA system within an education and training environment across the entire regional operation.

As a major provider of vocational education and training, the TAFE sector was fully expected to meet these requirements, at a time when there was an increased level of competition between the TAFE sector and the private sector in the provision of vocational education and training.

In comparison to most of the country, the TAFE Queensland leadership had actively embraced the national training reform agenda within the vocational education and training sector, and had determined that TAFE had to change. Many other jurisdictions maintained a strong government involvement limiting the level of funding made available through a competitive process. The timing of the national training reform agenda, with the national curriculum initiative, coincided with the decision of the Southern Queensland regional management group to implement quality assurance throughout regional colleges and campuses was another critical component in the level of change impacting on TAFE personnel (see Figure 2).

The initial call for a Quality Manager was through an invitation for an internal expression of interest, and after some initial hesitation I felt that it was a good opportunity to undertake an in-house project that would benefit my own regional colleges and campuses (see Appendix 13 – Quality Management Project Letters).

In preparation to develop my knowledge and understanding of the quality initiative in education and training I undertook a series of learning activities, through workshops, conferences and seminars associated with the quality assurance/management agenda. In the process I acquired qualification and experience as a 2nd party and 3rd party auditor (see Appendix 14 – Quality Auditing Qualification) and became a member of the Australian Organisation for Quality (see Appendix 15 – AOQ Membership Certificates).

The regional structure consisted of four distinct colleges, at Toowoomba, Kingaroy, Roma and Warwick, and four campuses attached to the colleges at Dalby, Cherbourg (aboriginal mission), Charleville and Stanthorpe.

Being based at the Toowoomba College was not necessarily an advantage, even though it potentially provided more support and resources as a result of the size of the college. Toowoomba served a community with a population of ninety thousand people, while the three other colleges served populations of less than twelve thousand each.

The other campuses affected by the organisational change were located in key rural areas and had very strong communities that generally viewed any loss of control to Toowoomba as detrimental and something that needed to be resisted. The colleges at Kingaroy (150 kilometres to the north), Warwick (90 kilometres to the south) and Roma (350 kilometres to the west) represented various farming and rural interests and the satellite campuses attached to each of these were located even more remotely from the main administration in Toowoomba.

As mentioned earlier, TAFE was experiencing a series of major changes. In addition to the competitive agenda, there was the introduction of the national competency based training and assessment curriculum, and there was a great deal of planning and discussion underway in order to re-structure eighty-four TAFE colleges into sixteen TAFE institutes.

For many teaching staff, the quality concept seemed like it would involve substantial change. It implied that a deficit existed, requiring more work, which, in turn, would mainly impact on the teaching and learning process. Understandably, this presented a situation that was not widely supported or embraced by the educational staff.

There were also significant differences in the level of investment by the various college administrations, and consequently the degree of up-take by each of the colleges in regard to the quality assurance agenda.

The regional TAFE structure at the time was essentially a collection of colleges functioning as silos. By that I mean that they did not 'work as one', but as a series of small parts operating independently. Their individual priorities, or actions, as a result of decisions made at regional meetings, were dependent on how the decisions impacted on their own college in respect of resourcing, which included staffing, budget expenditure and benefit to the college. Initially, the Warwick College made significant investment to take up the quality agenda through training and allocation of personnel. Toowoomba also made an initial,

but less convincing, effort, while the remaining colleges and campuses had not commenced with the programme.

Having some take up of the quality agenda was helpful to some degree. Although this partial commitment was a challenge as the final certification had to be for education and training policies and procedures across all colleges and campuses.

A limited budget was provided and I had an administrative officer assigned to work with me to develop the system and processes for implementation throughout the region. This enabled me to work on the change agenda with the various faculties, about the nature of the change and the potential impact on teaching and learning.

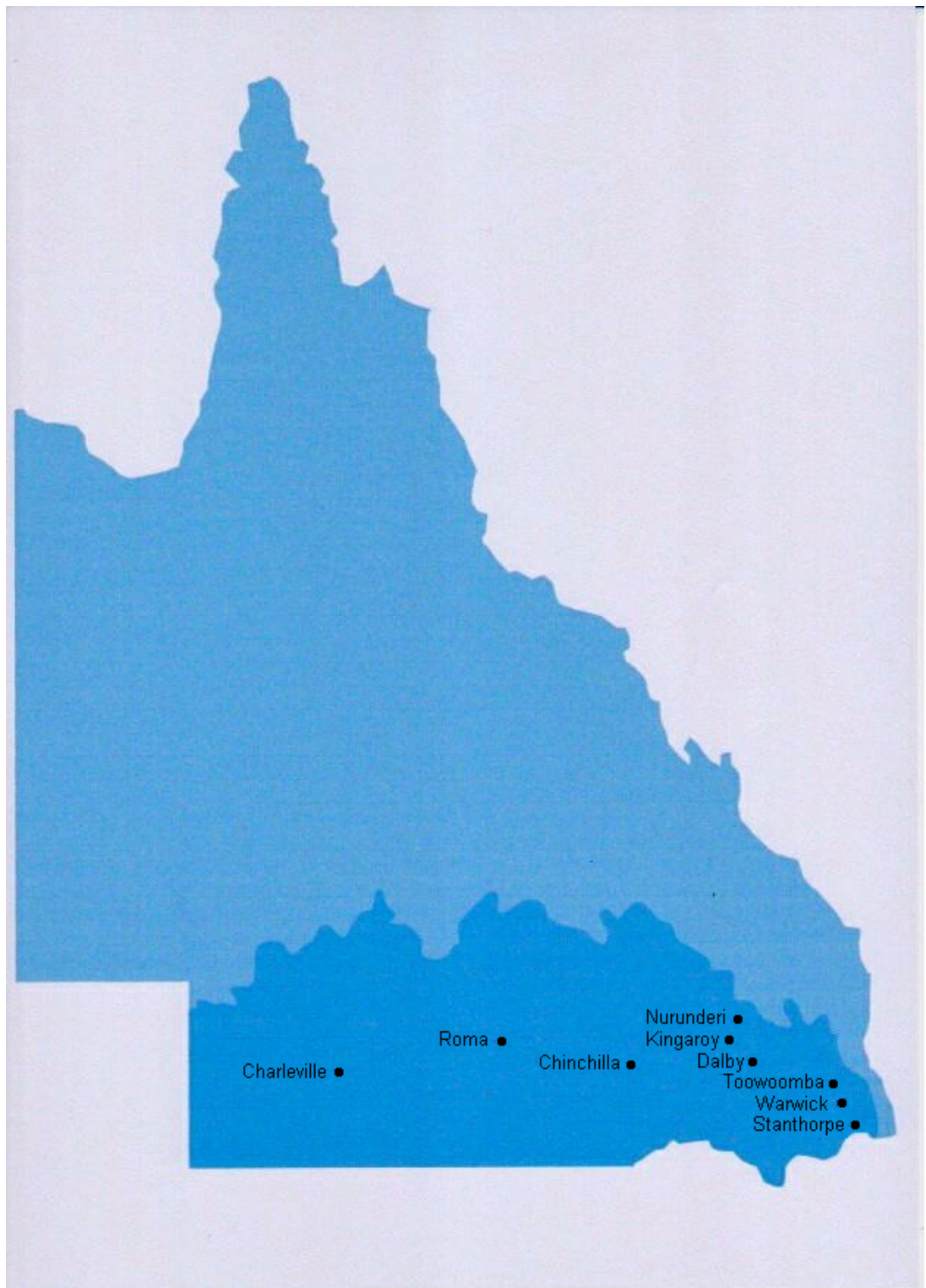


Figure 2 **Map of the TAFE Campuses throughout South-west Queensland**

The timeline was, essentially, to achieve quality assurance (QA) within twelve months. This target was quite arbitrary as there was not a high level of understanding of what was actually required in order to achieve this goal or the consequences if the timeline was not achieved.

Initially, I felt that it would be important to undertake a mapping of the various sections of the international standard for quality assurance into an educational translation that could be understood and applied within our own unique application. Clarification of terminology was also required as there was widespread confusion about related terminologies, such as Total Quality Management (TQM) and quality control (QC), and other various references that were circulating throughout the TAFE sector.

The standard required organisations to develop and maintain (as a minimum) documented procedures for:

- control of documents
- control of records
- internal audits
- control of nonconforming product/service
- corrective action
- preventive action

The onus was on staff at all levels to contribute to the effort in some way or other, be it in working on actual policies, the implementation of procedures, the maintenance of the system and/or improvement strategies to correct system performance issues. This aspect of the project was the key change agenda and I was fully aware from my previous project that individuals who work at a high level have to be convinced that the initiative does not question the existing 'quality' of any individual or group's work performance.

In the early phase of the project it was important to ascertain the level of understanding of QA before ascertaining the level of commitment to its implementation. I commenced with visits to each of the campuses to discuss with management their understanding and expectations. This strategy had worked well in the National Curriculum Project and had contributed to establishing trust and 'buy in'. So I worked on communicating some key concepts to staff.

Similarly to the curriculum project experience, I found that within the regional management team there were examples of development levels ranging from D1 to D4, although, on the positive side, it became apparent that there was a common desire to achieve QA certification and that everyone I spoke with in management was pleased that there was a coordinated effort being made.

The main emphasis of my contribution was to lead the QA agenda within the wider organisation and to engage the staff at all levels. Due to the amount of change that was being applied at that time, there was a great deal of distrust of management. Given that the project had been identified and promoted through the management team, it also became apparent through my research of the quality agenda and through the interviews with management that the most significant challenge would be in gaining the support and/or engagement of staff.

This insight was supported by feedback received through some random interactions with teaching and non-teaching staff, which indicated that this project was perceived as another management initiative and of little importance to staff. It therefore became essential to find ways to involve staff at all levels before a recognised QA system could be successfully implemented and maintained.

The previous curriculum project had been successful for a number of reasons, but, importantly, its success was due to a combination of applying my own way of doing things, informing myself through research, analysing and understanding the complexities of the working environment so I could be pragmatic and building up trust and confidence in my leadership through individual engagement and modelling commitment.

The definition of engagement that provided some direction and focus for me in this project was that of Turner and Crawford, who advocated “getting the people throughout the organisation informed, involved, committed and motivated to act to achieve the organisation’s purpose and future directions”. (Turner and Crawford 2000:17)

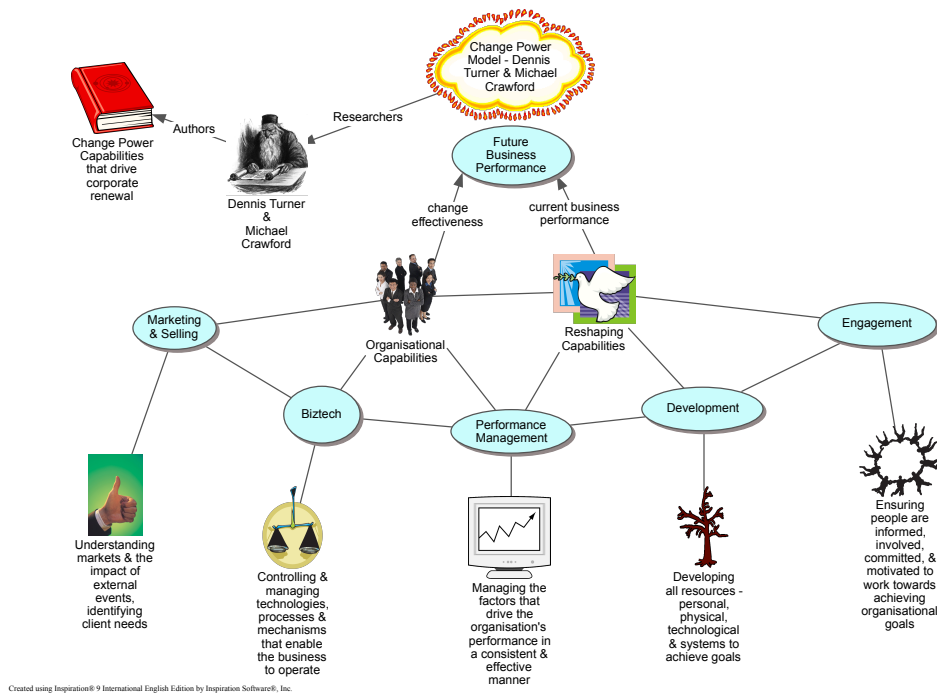


Figure 3 Change Power Model

The first round of engagements involved:

- providing a series of written communications through the staff intranet as a means of communicating information,
- conducting a road show of staff forums throughout the regional centres to outline the structure and format of the QA system and how it was going to be applied to the core activity of vocational education and training (see Appendix 16 – Quality in Teaching and Learning).

Providing information to staff throughout the organisation enabled them to be informed about the topics, and the basis, for the staff forums that I was hosting at the various campuses. Quality is more than just having a set of procedures; it is about recognising and developing the quality in each individual so that attention to quality becomes part of the culture of the organisation rather than a tick in the box of regulation. This was an important focus of the forums. Participation levels were reasonably well balanced between teaching and non-teaching staff and attracted approximately 30% of the staff at each campus (see Appendix 17 – Implementing Quality at Toowoomba College of TAFE).

Similar to other concerns expressed during the curriculum project, there was an initial need to reassure staff that the change was not a result of poor performance or some identified deficit in the provision of services.

Quality Management in TAFE Queensland

Having started the process in earnest and having been involved in the initial internal audit at the colleges, as well as my advocacy for the quality agenda, I was approached by the Director of Vocational Education and Training Queensland to ascertain my willingness to become involved in a similar role to achieve QA certification for the TAFE Queensland Central Office in Brisbane.

This involvement in the quality agenda was further extended when my efforts in the state office caught the attention of the State Manager for Quality Management, the result of which was that I became involved in leading and developing state-wide training and development programmes for TAFE staff (see Appendix 18 – Quality Management Letter IV).

From my initial expression of interest, my involvement in quality assurance/management grew considerably, as I was now seconded on a part-time basis, five-days a fortnight, overseeing the implementation of the programme throughout the TAFE Queensland State office operations and in the three directorates (Corporate Services, Human Resources and Vocational Education and Training). This provided strategic direction to the TAFE system.

The expanded role included planning a professional development model that would raise awareness of the principles of quality management and develop staff capacity to undertake quality internal audits at faculty level throughout TAFE Queensland. I worked directly with the Queensland Manager to deliver the actual training and to establish a network for institute personnel to share and communicate their individual experiences and strategies.

Institute Directors who sought out our leadership to engage their staff in the quality management agenda valued the combined capability that the two of us offered to the TAFE system. We were invited into institutes to implement the training and conduct a 2nd party audit. Institutes visited included Mt Isa, Central Queensland, Tropical North, Southern Queensland and Wide Bay (see Appendix 18 – Quality Management Letter IV).

Apart from the actual quality implementation projects, my expertise in the National Curriculum area enabled me to develop a professional development programme as an accredited training solution (through ANTA) to encourage and support staff involved in the implementation of quality assurance.

The carrot for many of the institutes was that there was an expected professional development target of 5 per cent that had to be allocated from the direct grant government funding within a TAFE budget. Although the policy did not stipulate any need for the professional development activities to be accredited, it is something that I valued as a strategy and something that staff supported, as it could be utilised for their professional development.

Furthermore, as the largest provider of VET in the nation this strategy seemed to be a logical approach at the time, and even today. The fact that VET accreditation and qualifications within the VET system is not encouraged doesn't really make a lot of sense. It would certainly seem that this is a deficiency of the system, as many of the staff could gain career advancement, recognition for their work based activities and, in some cases, increased remuneration through gaining vocational qualifications.

The training and accreditation solution arose as a result of undertaking some of the institute audits and through talking with various institute staff about their experience and needs. At the time, there were professional programmes being conducted in the marketplace for people in QA awareness and internal auditing. Through becoming involved with the Australian Organisation for Quality and completing some of their short course programmes, I identified the relevant competencies for the quality training from the Business Service

Training Package. With this detail, I then wrote some draft curriculum and submitted it through the relevant curriculum branch for accreditation.

The final competency based unit options included an awareness course and an internal audit course for submission to Australian National Training Authority (ANTA) through the business service vocational area. (See Department of Education Employment and Workplace Relations 2012)

Essentially, this meant that any staff that participated in the professional development activities was able to receive nationally recognised certificate level units of competency. This approach of combining the completion of a nationally recognised qualification with a workplace outcome was a significant moment in my understanding of the benefits of work based learning. “Formal learning, such as skills-based courses and vocational training, have considerable legitimacy” when combined with work based activities and it is a human resource issue that still does not have any specific leadership in TAFE to this day. (Mokhtar 2010:392)

It confirmed the definition of workplace learning as that utilised by Rylatt, which incorporates the ‘development of people’ and the ‘achievement of organisational outcomes’ through ‘sustainable’ applications. (2000:xxi)

The impact of the influence we were having on the TAFE system became evident as the demand for resource allocation of people to lead and manage the quality agenda grew throughout the institute networks, as did the level of enquiry and need for further exploration of the concept of quality, which was exceeding our capacity to respond.

To enable ongoing learning and development, I suggested that within TAFE Queensland we have staff contacts at each of the institutes and that there would be benefit in bringing them together with the State Quality Manager. It needed to be a regular activity in order to enhance the shared learning and development of the quality agenda throughout the organisation in a more effective manner (see Appendix 19 – Quality Assurance Referee Statement).

The nature of the work and experience involved in these quality management initiatives were instrumental in being invited to participate in the reference group commissioned by Standards Australia to develop Quality Assurance Guidelines for Education and Training (AS/NZS 3905.5:1995, superseded by HB 90.7-2000) This activity provided the inaugural framework for educational institutions prior to the establishment of the Australian Quality Framework. (Australian Skills Quality Authority 2012)

Learning and Reflection

In carrying out this work based project I recognised that I would gain valuable experience in working with my colleagues at all levels – teaching, administration, library services, human resources, stores and maintenance. It also presented an opportunity for me to extend myself beyond my comfort zone and oversee an administrative outcome through the development of policies and procedures, while facilitating professional development of staff in the implementation of quality assurance.

My specific background in quality improvement had come from the engineering manufacturing industry, through the design of tooling for the manufacture of components and in production planning to set standards for production personnel. This provided me with an appreciation of the effort and time it takes to document and establish workable systems and processes as part of an overall organisational strategy.

The main challenge that I could foresee from working within my own TAFE institute was the need to build a rapport with staff at all levels of the organisation. I understood that it was an imperative to engage with staff in their own work teams, to talk to and listen to them, and acknowledge their concerns and perceptions. Interacting with the various work teams was insightful, as there was a distinct difference in the behaviour of teams from the non-teaching area in comparison to that of the teaching teams.

The non-teaching teams functioned under a directive leadership model that was “built on upon formal hierarchical structures, i.e. position power.” (Herre 2010:20) It was the person with the higher job classification who exerted his or her authority to ensure that all team members were aware of his or her priorities required to achieve the team’s outcomes. In contrast, teaching teams did not have a hierarchical structure and exhibited behaviours that were more aligned to what Herre described as person-focussed leadership. (2010:20) It was evident through my consultations that these various teaching teams exemplified the range of transformational, consideration, empowerment and motivational leadership that existed within each team and in their influences on how the team operated and achieved their goals.

Although I did not document any characteristics or make records about team leadership dynamics from these exchanges, I do know that the teams that displayed empowerment and consideration within their deliberations were more innovative in their approach to the work at hand and generally more positive about how they could respond to the challenge of quality implementation. These traits and their associated benefits become even more apparent when working with the educational teams to implement flexible learning strategies in my later work.

Regardless of leadership characteristics and how they impacted on teams, the important fact that emerged was that no matter what position a person held within the organisation there was a common belief in his or her capacity to contribute to the ability for a learner to enter the campus and undertake a range of experiences designed to develop skills and knowledge that would ultimately result in the gaining of a certificate or diploma qualification through the Australian Qualification Framework. (Australian Government 2012)

This was an interesting revelation. I realised that while it was something that I also personally believed, until engaging with others through this project I had not heard it expressed with such genuine sentiment. This is something that should be shared with teaching personnel, as I am not sure that this

commitment by non-teaching staff towards supporting learning is widely acknowledged, if at all accepted, by the teaching profession.

My quality implementation work was undertaken during a challenging period in the TAFE system, as the national VET agenda influence had developed and staff were feeling threatened by the competitive changes. Morale was low and people did not feel secure in their jobs. This insecurity was evident during my informal discussions with staff, and the mistrust was openly, and often, expressed to me.

In hindsight, it was fortunate for me that my primary position was that of a teacher and I had taken on the role as a project. This meant that my colleagues were more inclined to be open in their communication. Staff participation in forums was voluntary, as I was conscious of potential negative reaction if this was perceived as a directive from senior management. The introduction of written papers that I distributed through the intranet also provided a positive basis for staff to engage and question.

The national curriculum project provided opportunities to manage a specific budget against timeliness, with a small team to realise a curriculum product that could be applied in accordance with the respective jurisdictions. It was of a developmental nature and did not require any implementation as part of the project outcome.

The quality agenda was to be applied across the organisation (in the first instance) and enabled me to develop a deeper understanding of the notion of change and its impact on people who were expected to adopt the initiative. During the quality implementation I was conscious of how people felt about the change, "people often describe fear, danger, loss, anxieties, and panic, and by engaging in numerous interviews and meeting with staff I was better informed and understood the concerns needed to incorporate some flexibility in the approach. (Fullan 2004:1)

Anecdotally, the bulk of the time in meeting with staff, discussing and even arguing the issues, was consumed by people who were fearful and/or anxious about the change, seemingly because they were “hard core resistors who make a career out of being against everything” and just didn’t want to cooperate. (Fullan 2004:53) However, I found that the people who feared the change agenda tended to be the ones that engaged the forums and meetings with the greatest enthusiasm, which turned out to be close to fulfilling what Fullan said, “we are more likely to learn from people who disagree with us” (2004:52). I found that the early adopters were more interested in obtaining the most pertinent details and expectations of the proposed change in order to get on with the task at hand.

Today, the quality agenda has grown and developed into a vocational education and training specific framework that is administered on a national level. In an increasingly open market it is known as the VET Quality Framework and providers of vocational education and training are required to satisfy stringent requirements in relation to:

- standards for national VET regulator Registered Training Organisations;
- being fit and proper persons;
- Financial viability risk;
- Data provision requirements; and
- Australian Qualifications Framework.

The latest version of the VET Quality Framework is far more complex and demanding than the requirements of the initial model established for achieving certification through the ISO9000 Quality Assurance standards. (Australian Skills Quality Authority 2012) This currently prescribes standards on quality assurance, including information such as organisational charts and duty statements, annual internal audits, written business plans, financial viability and public liability insurance.

Agbola and Lambert (2010) have highlighted the trend towards greater government control and surveillance, which conflicts with the governments’

advocacy of, and push for, industry input into, and ownership of, a strong, robust VET sector. From a VET practitioner's perspective there is concern from professional educators having to justify their activities in a subjective process by administrators who are not appropriately qualified to understand the teaching and learning processes and strategies.

“At present, changes to certain activities such as an expansion in scope of the type or level of qualifications the RTO would like to teach, or a change management, trigger an automatic audit under the current AQTF”. (Agbola and Lambert 2010:342)

On the positive side, the development has been ongoing, and, currently, a “quality assurance mechanism found in the VET Quality Framework coupled with relevant training packages creates a solid foundation for skill development in Australia”. Though there is significant discrepancy in course durations “with some qualifications having a nominal duration of 12 months in one jurisdiction and 36 in another.” And, “Any effort to create a truly national system must address the issue of making sure there is consistency in the VET sector across the country”. (Agbola and Lambert 2010:345)

The actual reality of such a discrepancy is that in some situations it can simply be a result of a legitimate strategy that incorporates significant work based learning and/or recognition of prior learning (RPL); although there are other situations where the duration has been based on the needs of the training organisation. For example, in the schooling sector, VET qualifications can be offered in conjunction with the scheduling of the senior schooling certificate over a twenty-four month period, while a private training organisation can complete the qualification in six months to meet an employment based initiative that incorporates significant work based learning.

Despite the many and varied commentaries on VET in Australia, it is interesting that critical comment or research is not as widespread on the topic of quality in VET under the Framework as there is of higher education. Utilising teaching staff from other universities in the actual audit process may be a contributing

factor to this situation. It is certainly not the model for auditing in the VET sector. Though there are a number of private consultants offering registration and auditing services to prepare registered training organisations for audit against the standards, no individual involved in the provision of VET is permitted to participate in an audit.

Anecdotally, the lack of commentary or criticism might be due to the large number of private providers that are reluctant to be in the spotlight of the national regulator for Australia's vocational education and training sector or, alternatively, that the government controlled TAFE system needs to satisfy the relevant state or federal position in order to not rock the boat (of government).

My involvement as a director and training facilitator of a small community based RTO in North Queensland requires my ongoing interest and concern for the direction being taken in recent times. I certainly plan to continue to contribute to any effort to bring about some positive change, change that focuses on the actual quality of learning outcomes for learners and less on the needs of government.

The quality agenda is still a topic worthy of further attention. Any development that embraces quality improvement by an individual RTO against a consistent national standard will be extremely beneficial in positioning Australia's VET system to respond to the growing need for skills development.

The next section will provide a focus on the industry endorsed national training packages and the strategies utilised for the provision of the qualifications for people living and working in rural and remote areas of Australia. It relates to my contribution to flexible learning and represents what is perhaps the most significant work in my career advancement: my learning and my values.

Public Work Three

Flexible Learning

What defines Australia is, to some extent, the vast expanses of wilderness between small and large areas of communities. In respect to the geographic area of the Southern Queensland Institute of TAFE (SQIT), the tyranny of distance between communities dispersed throughout the TAFE institute (See Figure 3) was made very evident in many of the forums and community consultations that were held across the institute campuses during consultations associated with the formation of the institute. The communities clearly expressed the view that they valued the notion of the institute in supporting people who live and work in rural and remote areas and the access it provides them to similar study options as people based in larger centres.

At this time, the SQIT was in varying stages of evolution, transitioning into one of the fifteen institutes involved in teaching and learning through its campuses throughout South-west Queensland. At the time, if there were any individuals who weren't able to access the course of their choice locally they would be directed to the sixteenth TAFE institute, the Open Learning Institute of TAFE. The desire by the Queensland TAFE system to be at the forefront in responding to education and training needs resulted in a number of initiatives from the state office.

Following on from the quality management work that I had been involved in throughout the TAFE sector, 1996 was another eventful and interesting period. This was the year that I was appointed (on merit) to my first formal leadership position as the Director of the South Burnett College of TAFE in Kingaroy. I was also asked by the Regional Administrator to accept wider responsibility for leadership of the educational agenda on behalf of the developing Southern Queensland Institute of TAFE (SQIT). At the first state-wide meeting of institute representatives that year we were charged by the General Manager of TAFE Queensland to lead a new educational delivery strategy known as videoconferencing.

This technology had originally been acquired in the early nineties and installed through the TAFE system colleges and campuses in what I would describe as a 'fabulously great idea' (or FGI).

The unfortunate aspect of the FGI approach is that it could be described as being somewhat of a 'field of dreams': 'if you build it he will come' (Kinsella 1999). In the case of videoconferencing, the technology was built and delivered, installed with some basic details provided to some staff within the TAFE system and, essentially, that was extent of the initiative. There was no other expectation or planned usage shared with staff or even how to best utilise the technology in a teaching and learning capacity.

My first task was to consider how best to utilise the technology for SQIT. I began by reviewing the common courses that were being delivered across the various campuses of southern Queensland, with my fellow college directors and faculty heads. Through this effort I was able to identify how a greater range of course unit offerings could be achieved through better coordination and application of the technology. For example, in the Diploma of Business it was clear that without any coordination the same units were being offered to relatively small numbers of students at multiple campuses. By offering some of the common core units through videoconferencing, SQIT could consolidate the small student groups into a large one. This strategy then allowed teachers to offer more choices for students for any particular semester.

It all sounds quite easy, reasonable and straightforward enough when it is written down and explained. However, the use of technology for many teachers and students was not seen as advancement. There were often debates about the disadvantages if SQIT could not place a teacher in front of a group of students. From a personal experience of having found my own pathway through the less than friendly educational maze following my secondary education and using distance correspondence education to gain higher technical and university post-graduate qualifications, this was not an argument or a position that I could accept.

From initial implementation of videoconferencing in the early 90s (branded as Videolinq) there had been no support structure, no professional development, no administrative information and, consequently, the videoconference units were usually stored in the back of a teaching space and remained there for a number of years, with the exception being for some administrative application. As John Mitchell (1997) would suggest in his concept of hierarchy of uses, we were only performing at level one, as the usage was “as a corporate communication mechanism and for saving on travel”.

Table 4 Videoconferencing Hierarchical Model of Usage

Level	Usage
One	Videoconferencing as corporate communication mechanism
Two	Videoconferencing as a cost effective strategy
Three	Videoconferencing for staff productivity
Four	Videoconferencing collaborative working
Five	Videoconferencing to deliver value-added services
Six	Videoconferencing to meet world's best practice
Seven	Videoconferencing to achieve sustainable competitive advantage

John Mitchell 1997

Given that the geographical area of SQIT is 485,000 square kilometres, which is almost double the entire area of the United Kingdom at 244,000 square kilometres (Geography 2013), this technological application represented a significant benefit from a teaching and an administration perspective, as transport options between locations were limited to single lane highways. The distances are long and there are many potential dangers from wildlife and from large road trains traversing the many roadways in the Southwest network.

Nevertheless, in the initial stage, the technology was not actually benefitting any learners through an enhanced educational model. It was clear that there was a great deal of work required to achieve a more appropriate level of usage for SQIT at level five.

The increased emphasis placed on the needs of learners by both the national training package implementation and increased competition saw a shift in the culture of courses being offered based on the qualifications required by employers/industry and not the self-interest of teachers.

This change of emphasis in 1996 resulted in a renewed effort to utilise Videolinq in the teaching and learning activities of TAFE institutes; for instance there was a specific requirement for each institute to identify a leader in the administration area and the educational area to lead the agenda. The TAFE organisation also assigned senior management responsibility to a TAFE Institute Director with a State Manager to assist in the implementation process.

As mentioned previously, in identifying opportunities to maximise the application of Videolinq I engaged with the faculty heads and individual teaching teams to identify the potential students that could benefit from a wider offering across the institute. The identification of the learning opportunities was certainly a good starting point, though it was quite obvious that in order to succeed the teaching teams were in need of timely and relevant professional development, support and recognition.

With the learning needs of teaching staff firmly established in my mind I took up the issues with the Videolinq State Manager. The additional support that was realised in the second iteration of Videolinq included:

- system upgrades were made to the on-board computer in order to eliminate the technical failures;
- the running costs were countered by the development of a free-to-air option;
- a State Manager was appointed to assist the institutes achieve their identified outcomes;
- management personnel from each participating institute were identified to lead and support the implementation;
- institute Programme Coordinators were allocated to ensure that the administrative support could be provided;
- specialised teacher professional development programmes were initiated to assist teachers develop courses for presentation via Videolinq; and
- additional support was also made available to enable some resource development to be undertaken in high demand courses.

The motivation for me to be actively involved in the initiative was based on the revelations from SQIT's community consultations and as a result of findings from a state government study of rural and regional communities. I was invited to participate in the government review and found that rural communities struggled to maintain their presence, and a major contributing factor to that was the migration of younger people to larger urban metropolitan areas in pursuit of further education and training opportunities not available in the bush (see Appendix 20 – Videolinq Referee Statement).

In my view, Videolinq had the capacity to deliver existing programmes from one location to another location or even from one location to several locations simultaneously. It could provide a solution for how to retain younger generations in rural and remote communities.

My work to advance this cause was recognised when I was awarded a Queensland Government Staff Scholarship to investigate the application of flexible delivery in vocational education and training, and I travelled to North America. The two months scholarship, taken up in early 1997, was used to attend the American Association of Community Colleges conference and to visit community colleges and universities on the west coast of North America from Los Angeles to Vancouver (see Appendix 21 – Staff Scholarship).

The most significant revelation of these North America urban environs was that distance was not necessarily the only basis for people to feel isolated and unable to attend a tertiary institution; there were also issues of transport, personal security, family circumstance and employment demands.

The second half of my study tour was spent with a number of educational institutions in British Columbia, Canada, where the population levels and distances are similar to the situation in Australia.

In both countries, videoconferencing technology was more advanced and the application more contemporary than that in TAFE Queensland. The system

incorporated reliable broadband Internet connectivity at affordable prices, and this was proving to be a very valuable educational tool for connecting learners to a range of choice.

The application of technology that I witnessed through the learning process, combined with the increasing developments in technology based learning options ignited my interest in the other possibilities for asynchronous learning supported by technology (see Appendix 22 – TAFE Scholarship Report).

Back in Australia, while attending an Open Learning Conference in Brisbane, I was introduced to an appropriate framework for the application of technology in the learning process. Ms Elaine Atkinson's dimensions of flexibility was a tool that had been utilised in a university setting, and it provided a timely point of reference in analysing the situation in my own VET environment, beyond videoconferencing. (See Table 5)

Interestingly, the Atkinson model utilises some similar approaches to the quality assurance work based activity that I had applied previously. That is, planning and identifying options through asking critical questions of who, what, when, where and how.

Table 5 Major Dimensions of Flexibility

Inflexible	Dimension	Flexible
	Access	
<i>Stringent entry requirements</i>	<i>(who)</i>	<i>Unrestricted entry</i>
<i>Informal prior learning not recognised</i>		<i>Informal prior learning recognised</i>
	Timing	
<i>Set duration</i>	<i>(when)</i>	<i>Take as long as required</i>
<i>Fixed starting and finishing dates</i>		<i>Start and finish when ready</i>
<i>Prescribed study timetable</i>		<i>Study anytime</i>
<i>Fixed assessment dates</i>		<i>Assessed when ready</i>
	Location	
<i>Attendance at specified locations required</i>	<i>(where)</i>	<i>Study anywhere</i>
	Curriculum	
<i>No account of prior learning</i>	<i>(what and how)</i>	<i>Modified according to prior learning</i>
<i>Specified objectives</i>		<i>Individually negotiated objectives</i>
<i>Prescribed content</i>		<i>Individually negotiated content</i>
<i>Lock-step progression</i>		<i>Individually negotiated sequence</i>
<i>Prescribed activities and tasks</i>		<i>Individually negotiated activities and tasks</i>
<i>Common assessment</i>		<i>Individually negotiated assessment</i>
<i>Standard resources</i>		<i>Varied resources as appropriate</i>
<i>Limited class based use of information technologies</i>		<i>Extensive individual use of information technology</i>
	Support	
<i>Standard provision (e.g. mandatory tutorials)</i>	<i>(how)</i>	<i>Choice of form and extent</i>

The degree of flexibility or inflexibility of some programmes was not the critical concern. What became apparent as I spent time working with teaching teams to identify the characteristics of their learners, was that the application of the ‘who, what, when, where and how approach’ to describe the learner provided the foundation for how to best design a flexible approach to learning programmes.

Educationally, the key challenge with developing any flexible learning approach is the ability to enable the learner to engage in asynchronous learning experiences and not merely the synchronous solutions that have been traditionally offered by vocational education and training institutions.

Within SQIT, the resulting development of flexible approaches realised some significant options. This in turn was further motivation for me in my efforts to contribute in assisting teaching teams to achieve their goals.

Some of the main delivery outcomes for the SQIT during the period from 1996 to 2000 involved teachers developing and facilitating:

- videoconferencing of the Diploma of Enrolled Nursing and the Diploma of Business to multiple campuses of SQIT;
- blended programme of print-based resources and intensive workshop for Certificate III in Hairdressing apprentices from South-west Queensland;
- blended programme of print-based resources and workplace learning for rural trainees in the Certificate II in Rural Operations; and
- online self-paced learning programmes developed for trainee students enrolled in the Certificate II in Retail and Certificate II in Early Childhood Education.

These flexible options were developed through consultation with the teaching teams directly involved with their students. Through some smart programming of teacher time, and networking with TAFE and developers, the work did not draw additional funding, which was an absolute bonus, especially as the lack of funding is used as an excuse by many teaching teams for not doing undertaking activities.

During this period, the Australian National Training Authority (ANTA) was supporting the changes associated with flexible learning through a range of professional development funding sources that were available for educational teaching teams and senior managers.

Through my direct involvement with flexible learning, I was encouraged to apply for an ANTA Flexible Learning Fellowship in 1999, available for “senior managers in vocational education and training to undertake advanced research and study on flexible learning methods used around the world and their applicability to the Australian context.” On completion, Flexible Learning

Fellows incorporated their findings into change management plans for their home organisations. (Australian National Training Authority 2002)

My fellowship initially involved working with an action learning mentor and with the other fellows on a framework for our action-learning plans. (Baker 2000a) This framework was then developed through reciprocal institutional visits with each of the participating fellows. Apart from the literature, I was able to learn from interviews and visits with people from higher education and from vocational education and training institutions in Australia, as well as colleges in rural and remote regions of Canada. The underlying positives of this fellowship for me was that it provided the opportunity to focus on identifying examples of good practice in flexible learning models for learners who are primarily based in rural and remote regions.

Pertinent learning outcomes from the fellowship that became instrumental in a number of subsequent initiatives that I undertook in managing flexible learning opportunities were:

1. Learning strategies should match the teaching style and needs of educational staff as a mechanism to encourage adoption of new approaches to teaching and learning.
2. New approaches to teaching and learning require appropriate resources to be provided to educational staff in order to remove fear and distrust of the capabilities of information and communication technology, and the confusion it can bring.
3. Planning and implementation for innovative approaches to teaching and learning require signification ownership at the grass roots level, with support and encouragement from management.
4. Communication and information technology is merely a tool for the benefit of humankind, and its application in any context should be to benefit the end user and the person applying it.
5. The need for students to access, apply and learn through a flexible learning solution requires appropriate research and acceptance by students and potential students in a programme.

6. Flexible learning has been successfully implemented when the teacher can realise some benefits for him or herself as a teacher.
7. Carefully planned professional development is a keystone in successfully managing the change process to adopt flexible learning.
8. Regular forums and discussion groups need to be facilitated and encouraged for the people taking the lead with innovative approaches to teaching and learning.
9. Technical support has to be readily available for teachers and learners to ensure that any potential problems are identified and rectified in an effective and efficient manner.
10. The organisation needs to ensure that the change is across the entire organisation and includes support areas such as the library, enrolments, administration, marketing, financial and student services. (Baker 2000b:8)

The net impact from the fellowship was to develop an even stronger commitment to the notion of life-long learning and a passion to encourage people at all levels to continue to engage in learning activities. Whether it is in the workplace, through formal study, new vocational opportunities or through active participation in workshops and conferences. As such, I actively encouraged my colleagues to apply for the development opportunities on offer through the Australian Flexible Learning Framework. Subsequently, three individuals from SQIT and four individuals from the general education sector (which I joined from 2002) became Flexible Learning Leaders (see Appendix 23 – Flexible Learning Reference)

My involvement in the national agenda extended when I accepted an invitation to contribute as a member of the National Selection Committee for the flexible learning leaders (until its demise in 2004), and from 2002 until 2005 I was a member of the Queensland Flexible Learning Steering Committee, which allocated professional development funding initiatives to vocational education and training organisations (public and private RTOs).

The knowledge and expertise I had gained as an active leader and participant in the 'community of practice' through the Australian Flexible Learning network enabled me to provide a timely intervention in another environment as the Principal of the Hendra Secondary College in 2003. This public secondary college was one of three in the greater Brisbane area catering for young adolescents in years 8 to 12, as well as young adults on the same campus in a senior schooling re-entry programme.

A number of my colleagues shared concerns about students who were identified as adult secondary re-entry students. In reality they were young adults who, as a result of a range of social trauma, had not completed their senior secondary studies. The ongoing issues that were impacting on their ability to learn and progress were such things as broken homes, drug use, abusive environments and lack of money. These issues were preventing them from attending scheduled classes. The intention of policies on vocational learning could not, on their own, help these young people to make progress in their communities or in life. If they had dreams, they could not be realised. This was a challenge I wanted to take on. No young person should be trapped by the failings of others. Equal opportunity of access to education had to be more than the education system existing for all. Vocational education, for me, has always been about social responsibility and action. If people in communities do not have the skills needed to work, and to progress in that work, they will not be able to usefully contribute to their families and communities. And without that, communities themselves become deprived and trapped in poverty. This notion of being trapped is one that has become clearer since I started this critical engagement with my own works, and is one, which I talk about in my closing sections of the statement.

It seemed common sense to me to consider greater flexibility in how, where and when people accessed learning. It still seems common sense; in reflecting on it, my common sense was informed by my years of experience and training and how I had come to respond to problems very pragmatically. In this case perhaps Voltaire is right when he says that common sense is not so common.

In addition in my working life, a number of people have said that is common sense, but they have done nothing to act on that summation.

I was ready to charge in and do something about the situation these young people had found themselves in. It was tempting to be the 'heroic' leader, in the sense of just getting on and doing something myself, but, on reflection, I would have been a rescuer excluding others, and that would impact on the success of the 'action' to resolve the problem. I am an introvert, and the idea of being the proverbial shining knight would cause a level of discomfort I could not accept. My years of experience guided the best course of action: it was important from a learning perspective to encourage my colleagues to talk through any possible options that they could envisage. I have never found active listening difficult. I have learned more from active listening than from books. I regularly seek out prominent thinkers and writers and engage in conversations with them. I attend conferences and go to as many workshops as is possible to fit in. I like to learn from the voices at the coalface and listen as they talk with others on the issues of the day. To me, conferences and workshops are live literature.

One of the strengths of the curriculum that was highlighted through this deliberation was the need to provide the students with an opportunity to achieve some success early in their programmes, in foundation mathematics and communication. With my colleagues, I was able to encourage a consensus to emerge through the offer of space and time to think and discuss and, most importantly, to listen to each other. In the end, we agreed that nothing useful could be achieved if we did not recognise the pressure that these young people were under in getting to class and that this was the core issue we needed to address. My proposition for a more flexible solution arose from the discussion, as did their openness for working together to make it happen. The one thing I hear more than anything else in recent engagements in education is that "we do not have time to discuss anything, we only have time to do what is directed and implement whether we feel it is right, appropriate, relevant or not". This should be of concern to all educators. If we had just done the minimum, these young adults would have dropped out of the system to the detriment of their own futures and to our society.

My suggestion to develop an online learning course for this foundation work was accepted as a solution, although the general consensus was that because the disadvantaged students did not have access to technology it would probably make it unachievable.

The college was fortunate in having a strong student support staff. I suggested we use these resources to undertake some research to determine the level of access students had to the Internet outside of college hours. The results of this small research activity was that 85% of the students had access and were interested in this form of study as an option. Checking assumptions is always an important part of a pragmatic approach in the context of the system or for individuals saying things can't be done.

The next step was in doing something about the fact that the college had no online course or technology infrastructure to support such a venture, let alone teachers that were competent with the technology.

My years of involvement with the Australian Flexible Learning network provided me with many connections and funding options, and after calling a meeting of the teachers working with the students I was able to match the enthusiasm of the staff with the means to access the appropriate learning management system, professional development for the teaching staff and ongoing technical support.

The motivation and empowerment demonstrated by the teaching staff to meet the pedagogical challenge was clearly evident. From my perspective, the actual work that was undertaken was incorporated as professional development. The entire activity was managed as a project and I facilitated the work activities through a project team approach, with regular meetings to gauge progress, assign tasks and resolve any emerging issues. Interestingly, the teaching team were able to utilise their content expertise to develop a pedagogical solution within one semester (6 months). This was an outstanding achievement and a significant educational benefit for everyone involved, particularly the students.

I believe small steps are how the best solutions are reached. Don't focus on the challenge itself; it may look like to big a mountain to climb. Look at the facts, check the assumptions, get the most out of what you have before adding to it; get people's buy in; take a step at a time and do it together. The leader in this scenario is motivational, facilitative and pragmatic.

From this momentum there came an opportunity to apply my knowledge of flexible learning further within the Department of Education at the Brisbane School of Distance Education through securing funding for professional development. This was a more complex environment. It was a Preschool to Year 12 (P-12) school and required an approach that would educate teaching staff about opportunities that might be applicable in their respective teaching areas. The success at Hendra Secondary College combined with the wider departmental issues for technology-based teaching was the basis for applying for both a school and a departmental grant for professional development in 2004.

Both applications for the school and for a departmental programme were accepted and the project outcomes, as outlined in the project applications, were realised (see Appendix 24 – BSDE Flexible Learning Plan and Appendix 25 – Education Queensland Learnscope Project Plan).

These professional development initiatives have evolved into what is now the National VET e-Learning Strategy, which has a strong emphasis on economic benefits. The strategy still involves assisting the VET sector with projects that aim to:

- strengthen the Australian training sector's use of new learning technologies;
- stimulate innovative approaches to increasing participation in training and employment; and
- improve the skill levels of the Australian workforce. (Flexible Learning Advisory Group 2012)

The emphasis is less on developing the individual capability of people in leadership positions, but rather on the capability to provide solutions for industry-wide initiatives and the economic benefit of having a highly skilled and capable workforce. This alignment with economic outcomes is certainly not new, though it has been instrumental in gaining a strong level of credibility with the private training sector. As indicated by McMillan, TAFE has historically “provided broader education and social opportunities for individuals beyond a narrower focus on the achievement of training outcomes for economic benefits”. (McMillan 2007:iii)

There are many educators who have experienced and realise the “value of vocational education to this state is well understood by many, communities value having a space for their kids to go to learn, it keeps them in the community, it adds life, skills and knowledge to rural and regional communities. In major cities, it ensures that there is a place for learners to go that supports them that opens up opportunities, that enriches lives. Universities do not fill every educational need for every learner.” (Mandley 2013)

However, it is interesting to note that the social service function no longer features in the public statement or dialogue about the role of the public VET provider by state or federal governments. A case in point is the work of the TAFE Queensland Review Taskforce that “agrees that there is a role for a public provider of VET in Queensland and that role is one of training for economic and employment priorities”. (The Scan 2012)

The concern here is that if this social service responsibility does not lie with the government funded and owned provider, what mechanisms will there be for future generations of individual Australians to be able to pursue life-long learning and/or achieve their individual goals, particularly in the educational pathways between a person’s secondary education, employment and university education.

For me, the ability to enable and empower any individual to embrace learning and development opportunities is the most rewarding outcome of being an educator. Although we know there are now numerous opportunities to engage in learning, the difficulties facing many people are: gaining the direction and/or knowledge about how to engage in learning, how to plan a pathway to achieve their goal and how to gain recognition for existing skills and knowledge, and knowing that there is support to achieve their desired goals.

That being said, I acknowledge that an important outcome of embracing learning and encouraging individuals is the benefit from an economic perspective. When an individual finds an option that does not present barriers to who, what, when, what, where and how they learn, there is growth and development in their vocational outcomes and at a societal level. John Stevenson has been a strong critic of the VET sector and is concerned about the impact on individuals: “the reforms in technical and further education have pursued an image of relevance, but have mistaken how individuals construct meaning in workplace activities and the relationships among these kind of meanings and those used in wider individual and social activities” (Stevenson 2007:15)

This position of Stevenson (2007) is reinforced by anecdotal evidence from my experience in mentoring many colleagues in TAFE, secondary education settings and students through the VET maze, as well as in the area of life saving education.

The development of the National Vocational Education and Training agenda continues today to influence the approach that TAFE applies in response to the changing environment and, more importantly, in the methodology employed in the teaching and learning process. It is difficult to isolate flexible learning from some of the wider VET agendas as they are interwoven and have to be incorporated into the teaching and learning strategies of RTOs as much today as when the system was first implemented.

Through public works, the impact is clear of national competency training and the subsequent developments that have arisen from the implementation of the National Training Packages, as is an increasing recognition that people learn in different situations, through a range of experiences and at a their own pace. Terms such as recognition of prior learning (RPL), on-the-job and off-the-job learning and flexible learning have become key characteristics of vocational education and training and have influenced its delivery strategy.

Formalising these aspects of the competency-based system has been a significant part of the challenge of the AQTF. Even today there are RTOs developing new approaches that enable learners to progress at different rates. This is a result of on-the-job learning being endorsed by qualified assessors in the workplace and the off-the-job learning that is based on traditional classroom approaches.

For example, since early 2004 I have held a directorship with a regional not-for-profit RTO that specialises in the provision of online learning solutions, with certificate level outcomes for learners completing VET as part of their senior secondary certificate. One of the current requirements of the AQTF is that teaching personnel are expected to hold qualifications at least equivalent to the vocational qualification that they are teaching. This means that if you are involved in a training programme for engineering apprentices enrolled in a Certificate III in Engineering, you must have as a minimum a Certificate III in Engineering, as well as a Certificate IV in Education and Training. (Department of Education Employment and Workplace Relations 2013)

Interestingly, the Certificate IV in Training and Education qualification is mandatory under the AQTF system, regardless of whether or not higher qualifications are held in teaching or education. This requirement seems absurd, as Smith points out, “when other industries accept the worth of university qualifications why would the VET industry not do so?” (Smith 2010:12) It is clearly a contradiction; the certificate qualification standards outlined in the AQF are lower than a higher education degree.

The Certificate IV in Education and Training qualification is recognised as a specialist VET qualification in order to become a qualified trainer and assessor in Australia. The main focus is on developing an individual's understanding of the Australian VET system and how to design training programmes for individuals or groups. The qualification also provides the means for assessing learners against the National Training Packages and for ensuring that they achieve the desired competency based learning outcomes.

This is a preposterous situation, that industry wanting highly trained staff is willing to accept the Certificate IV as the qualification standard for people who will be facilitating the development of their employees. "Every single TAFE system has withdrawn from its previous practice of requiring new full-time teachers to acquire a degree in VET teaching." (Smith 2010:11) During many years of VET research Erica Smith says she is not aware of "a single private RTO that requires its teachers to achieve higher level teaching qualifications", whereas the debate that is currently in the headlines in primary and secondary education is about higher pay for highly qualified and high performing teachers. (Smith 2010:11)

A search on the Australian training website reveals that there are hundreds of providers who offer the course through part-time attendance, full-time attendance and online learning initiatives that will enable fee paying clients to achieve the qualification. (TGA 2012) There is also a range of fees, which start at a few hundred dollars and rise to several thousand dollars, yet they all offer the same qualification and competencies for participants.

The RTO of which I am currently a director has a specific client base, through partnering agreements of senior secondary schools and colleges. I identified that the teaching staff employed within the secondary education system were experienced teachers who, through their undergraduate and/or postgraduate teaching degrees, have demonstrated their capacity to design, implement and assess learning, albeit in a non-competency curriculum, although in comparison to the majority of teachers (or trainers) in VET they possess knowledge and skills well in excess of the ten units of competency described in

the Certificate IV qualification. (Department of Education Employment and Workplace Relations 2013)

In order to support this cohort and to build our rapport with the schools I developed a proposal that we establish a Recognition of Prior Learning only model to recognise the extensive teaching and learning capability that the secondary school teachers have, and to introduce them to the Australian Vocational Education and Training system. Essentially, the fundamental differences for educators that have not experienced VET is the national structure, the language of the system and the concept of competency standards through the National Training Packages, as opposed to the criterion based assessment that underpins the general education system. This activity is something that I have incorporated into my current business activities with the RTO as it represents a low risk option given the existing expertise of teachers.

This example has been my own initiative, and since it has been included on our scope of registration in 2005 I have facilitated the RPL of teachers from secondary education and RLSS in three states and two territories in Australia.

While RPL is being utilised as a means of encouraging higher participation in VET, the real challenge and opportunity that has come to the fore with the development of training packages is the focus provided for the learner to be able to plan his or her learning programme. The ability to shift from a synchronous teacher-centric approach to an asynchronous learner model of learning has been perhaps the most challenging and, for me personally, the most relevant development of the Australian VET system.

The notion of learners having more flexible access to vocational education and training is at the forefront of the VET system, and no doubt has been influenced by the higher education sector through the numerous open learning campuses promoted to potential students across the nation (and internationally).

In the next section I will explore some of the vocational education applications associated with life saving and the impact that this voluntary aspect has had on reinforcing and extending my work based learning.

Public Work Four Royal Life Saving Society Australia

The learning that I have experienced and which I have been able to apply in my professional role in vocational education and training in respect to facilitating organisational renewal and change has virtually been paralleled through my voluntary involvement in the Royal Life Saving Society of Australia (RLSSA). In many ways, I have been able to apply much of the learning highlighted in this statement to achieve results at a state, national and international level, albeit in a different cultural environment.

My association with RLSSA began when I undertook my life saving award and subsequent Instructor/Examiner qualification as a beginning teacher in the pre-teaching course I mentioned earlier in this statement.

My initial involvement complemented my professional efforts as a teacher, being based on teaching and assessing people of all ages in the many water safety techniques and life saving awards, and in the qualifications offered by the RLSSA. This involvement included teaching cardiopulmonary resuscitation to vocational trainees and apprentices at TAFE, to people through community groups and clubs, to cubs and scouts, in Learn to Swim programmes and in the Austswim (Australian Teacher of Swimming) programme.

The first significant development occurred in the mid-nineties, when I felt strongly enough about the need to support members of the Society working in rural and remote areas of Queensland, as there were a large number of people providing water safety and life saving skills to people living and working in these communities.

Research indicates that people in rural and remote areas have a drowning death rate 1.7 times higher than people in urban areas. This was of some concern to me, as death by drowning is largely preventable (Royal Life Saving Society of Australia 2008) and I believed that attention to this through the core activities of drowning prevention and education had to be a higher priority than

what seemed to me to be the all-consuming pursuit of the mighty dollar. In Queensland, the Society at that time was focussed on profit.

I accepted a position on the Queensland board based on my personal epistemology and commitment to ensuring that people possessed the ability to be safe from drowning. At the time, I was the Director of the South Burnett College of TAFE and made the 400 kilometre return drive to Brisbane once a month to fulfil my obligation as a member of the board.

My level of involvement became a great deal more than merely attending meetings, as I worked as a pro-bono consultant with the Executive Director and the staff of the Royal Life Saving Society of Queensland (RLSSQ) to plan, implement and gain third party certification in QA in order to satisfy the state government's purchasing policy.

This work was then followed by another project and consultation: to assist with the necessary translation of the strong educational history of water safety in the country to gain recognition of RLSSQ as a Registered Training Organisation (RTO). This was a necessary development for the branch in order to enable it to provide vocational outcomes in the area of water rescue, advanced water rescue, applying first aid, CPR and automated external defibrillation (AED).

In early 2001, my involvement escalated, and I entered the sports aspect of life saving when I joined the RLSSA National Sports Committee, and after learning about the conduct of the national team's life saving championships, I was able to apply a solution to a developing competition problem. The situation was that the larger state bodies tended to have a surplus of quality competitors, while the smaller states and territories would struggle to field a complete team of competitors. This resulted in the competition being regularly contested between three states out of eight, for without a full team the smaller states would not be able to accrue any competition points in the overall event.

My suggestion was to invite competitors who were not selected into their own state or territory team to submit their names for consideration by other teams to

fill their vacancies for the national championships. After discussion and consideration, the proposal was eventually accepted. It is still operating to this day. This action created a higher level of competition for the event and allowed individuals who were not selected initially to be eligible to be part of the national championships and to be considered for selection in national teams in Commonwealth and/or World Championships.

Shortly after my initial term of two years commenced with the National Sports Committee, I was nominated by the Queensland board to fill a vacancy as its representative on the RLSSA National Council.

Some of my initial work on the sports committee and my strategic approach to issues were recognised by my colleagues from across the nation when I was encouraged to put myself forward for the vacant position of President of the RLSSA. Following the Annual General Meeting and presentations by myself and another member seeking the position, I was declared the President for the next three-year term.

The success I had enjoyed in undertaking the work of the Society up that point was quite extraordinary, and to be appointed to this position as the first Queensland-based individual since the formation of the Society in Australia in 1894 made it even more outstanding.

Initially, the demands on my time were quite high. I had to make some considerable adjustments in my time management in order to meet both my professional responsibilities and the work of the society, which included activities such as leading the national council, meeting sponsorship obligations and furthering federal government relations and advocacy.

The governance structure of the Society is premised on the fact that each branch is an autonomous body that works nationally through a federated model. This was a challenging situation from a strategic perspective as branches had a great disparity in terms of their respective operations and business acumen. Similar to the TAFE Queensland experience, with the

formation of institutes, this was another example of a 'silo' organisation, in that the Society did not 'work as one', but as a series of small branches operating independently.

In preparation for the strategic planning workshop of the National Council in June 2004, I utilised my leave from the Queensland Education Department to visit each of the state and territory branches to gain an understanding of the various associated issues or challenges. The intent being to develop a positive approach to gaining greater 'buy in' and commitment from each of the branches. This was a similar pragmatic strategy to the one that had contributed to the success of projects in my TAFE and education roles.

As an example, I identified, through my branch visits, that there was a level of duplication of overhead costs created by administrative tasks, including the printing of letterhead and business cards and website management. The lack of commonality in computer administrative systems was another area I identified for improvement and large cost saving. Strategically, neither of these was a difficult challenge, as they could be rectified through setting up a standard print agreement and by investing in a suitable computer solution for the benefit of all branches.

Through a review of the national budget, with the national Chief Executive Officer (CEO), I was able to identify a means of realising the solutions, and with the enthusiastic input from the branches that were likely to benefit the most, the project was created and work began in earnest.

Interestingly, it was as a result of this project that I received my first lesson about the level of self-interest that existed throughout the federated organisation.

The final solutions were made available to each branch, but were declined by four of them. The reaction from these branches was to make allegations against the National CEO and myself that we were attempting to influence the participating branches as a means of holding some influence at a National

Council level. It was very disappointing that the key focus for each branch had nothing to do with the successful 'working together' theme that had been developed through the strategic plan. It was more about the impact on activity, either for better or for worse, as perceived from a branch's perspective.

My response to such resistance has always been to remain as objective as possible and to not resort to personalising matters, which is what a number of individuals tend to do when they don't achieve their desired outcomes. I did my best to seek feedback from each stakeholder to better understand the issues, or their perspective, and to be optimistic in being able to find a win/win outcome.

In the case of the RLSSA, the demands were quite intense, especially when attempting to bring about a closer, more productive organisation, as there were individuals that would drag most strategic issues into an operational argument at every opportunity. This was not a situation that enabled the organisation to think and work strategically to reduce the drowning rates in the country.

Despite my inability to gain any traction with the National Council on a number of strategic opportunities, I set myself the goal of completing another term of three years with a mandate to address the national governance issue through the constitution. This is not to say that I have a strong belief in organisational structure as the solution for effective operation. From my experience with the National Council, I considered addressing the cultural issues as being more critical. This in no way ignores that a realistic approach to making organisational change "needs to take account of both structural and cultural variables". (Stace and Dunphy 1998:10)

In the end it became clear to me that cultural reform was a far greater challenge, and I was cognisant of the limited time available to me to address this issue and to truly engage the respective personalities.

The best achievable option, one that might provide the foundation for the future, was to complete the structural change and establish a legacy for further

development. In my mind, the major challenge was to change the dynamics of the decision making process by removing the employed officers from involvement in the governance of the organisation.

Given the range of relatively negative experiences during my first three year term as National President and the ongoing cloud hanging over the life saving environment in Australia, which results from having two totally separate organisations (RLSSA and Surf Life Saving Australia (SLSA)), there existed an opportunity to obtain some commitment and buy in for a change to the governance structure to provide a platform for the next stage of the Society's evolution.

Throughout this period, and in the lead up to the extension of the term, there had been numerous personal attacks on me and the National CEO by the employed officers from some of the branches, despite the olive branch being offered. One branch would not cooperate; it worked aggressively to undermine any developments that might not benefit it and created as much confusion and anxiety that it could through accusations of inappropriate actions or breaches of company law. These were dismissed outright through the engagement of external auditors, but at great expense to the Society.

I decided to seek an external person to help facilitate a workshop, as a prelude to future planning and to encourage some open and frank discussion. The objective was to assist people to understand that at the very least they had a significant obligation as company directors of RLSSA to make the company viable and for each of them to accept their fiduciary responsibility and to take an active interest in the society.

The consultant was a person known to me through some previous work undertaken with the Department of Education. I worked with her, after business hours, for three weeks in the lead up to the national workshop.

We first explored all options, including walking away, doing nothing and letting the status quo remain, or proceeding with the initial proposal. This process was

enlightening in the sense that for the first time in my work experience I was more aware of myself in the entire situation rather than identifying theoretical approaches or models to provide a solution. It was about listening to my inner voice, as “when one recognises one’s behaviour and has intent to change, then one has a complete understanding of one’s life.” (Adams 2006:31)

In most of the activities I have been involved in, I have undertaken them with a sense of them being a series of projects through which, along the way, I have advanced my position within the educational profession almost as a matter of process. In this instance, there was a definite sense of myself, and that the voices of people in authority in the past were not necessarily right, and that it was about learning more about myself and reflecting on the experiences I had brought to the groups that I have been involved with in my life. It was a case of acknowledging that I am the person “who created my world and I became more determined to recreate it more positively”. (Cooley 2006:4)

I had to decide whether I wanted to ‘reflect and move forward’ or ‘reflect and stand still’. As Cooley says: “it is the inner voice that influences us to lead ourselves in the direction we wish to go”. (Cooley 2008:5) I decided to move forward, to tackle the challenges by pressing on with the new constitution as my contribution to the society, with another three-year term as National President.

The remainder of the time was spent with me providing the consultant with a narrative of RLSSA, identifying each of the key player’s particular personality type (as per the Myer Briggs model) and the various contributions or level of involvement by each of the participants in the activities of the National Council.

The workshop provided the catalyst to move forward, with a unanimous agreement for changes to the constitution and the actual governance of the Society. Again we engaged specialists through a public expression of interest/tender process. While the timeliness did blow out as a result of a high level of input and debate by some of the existing board members and despite

ongoing resistance from some, the desired outcomes were reached through a majority process, and a new constitution was endorsed.

The net result for the Society today is that the membership of the national board has changed dramatically and the Society has a national focus and decision making model that is not directly influenced by staff from the respective branch operations. The positive for me is that it has enabled me to engage in further development work on a voluntary basis throughout the Asia Pacific region.

Reflection *Pang Habang buhay ito*

The professional activities highlighted through my public works and extended through the involvement with RLSSA have been premised on the application of my skills and knowledge through the responsibilities and activities developed in my work based roles in TAFE, education and RLSSA.

Interestingly, I recall that one of the leadership strategies successfully employed during my involvement with facilitating the various change agendas (quality, development of faculty teams, competency based training, flexible learning and curriculum models in the TAFE sector) involved me writing papers to share with staff. It has become apparent to me that this approach was really a form of reflection on my part; that I was sharing with others to help all learn and comprehend how these issues impacted on the organisation.

However, in respect to RLSSA, the organisational culture, structure and attitude were significantly different to that of my education and training experience. The fact that employees were part of the national board (until I changed it) prevented any unified strategic outcome being realised. Some of the branch executive staff were employed under revenue-linked bonuses, and while sometimes sympathetic to issues, they were not supportive of any national initiatives that had a negative impact on the business incentives for themselves and/or their organisation.

The ownership by branches, of any strategic national development, depends on the demographics within each state and territory, as they all retain autonomy at their respective locations. This is still an important consideration, though this argument was used frequently to oppose even developments that most regular members considered to be positive initiatives.

It was quite easy to feel that my best efforts and dedication were not only failing but that those who had actually benefited from some of the outcomes were not appreciating them. On a number of occasions I questioned why I should continue to expend so much time and energy on this organisation.

The counter to the negativity that I felt at different stages as National President was offset, to a large degree, by my involvement in the international life saving scene as a member of the Royal Life Saving Society Commonwealth Management Committee and in governance positions within the International Life Saving Federation.

A case in point arose at an International Life Saving meeting in Berlin in 2008. Invitations were sent to member organisations asking them to submit an expression of interest to host the next International Drowning Prevention Conference scheduled for 2011. The National CEO and I were aware that the two most significant regions in the world for recorded death by drowning had always been Africa and Asia, and given our work throughout the Asia region, we agreed we should submit a proposal to host the conference in one of the Asian countries where we had been working.

This proposal certainly felt achievable, as well exciting and refreshing. It also registered with my 'inner voice', as we had, as an organisation, demonstrated our research and conference management capacity on a number of occasions by hosting successful national water safety conferences in Australia.

In consultation with some of our partners, we firmed up the initial discussion to focus on bringing the collective knowledge and expertise into one of the identified risk areas of the world: communist Vietnam. From this point, we

worked hard to secure the support and commitment of all of our Asian colleagues in Bangladesh, Vietnam, Thailand, Philippines, Malaysia, Singapore and China to make this a viable proposal.

Though we had only committed an expression of interest, the National Council were not supportive from the outset and accused me of being an autocratic president who was making significant decisions without due consultation. In response, I worked with staff to prepare a detailed presentation that was designed to address the major concern of funding through a detailed sponsorship proposal and through dedicating funds over the next three years to self-fund the conference, if required.

A majority voted in favour of the proposal and the full application was completed and submitted with the endorsement of the National Council.

The conference programme was developed and held in Danang, with the support of the Vietnamese Government. With approximately 600 delegates attending, the conference was acknowledged by many International Life Saving delegates as being the benchmark for the future. (International Life Saving Federation 2011)

More recently, these learnings have evolved and enabled me to undertake what I would describe as the pinnacle achievement in applying my leadership skills and experience, my passion for supporting education, learning and development and my extensive involvement in life saving by working with the Philippine Life saving Society.

Philippine Life Saving Society

Towards the end of my final term, the RLSSA was approached at an Asia Pacific forum in Singapore in 2007 by a delegation seeking assistance for developing a life saving organisation for the people of the Philippines.

It struck me that, as an organisation, the potential for RLSSA to support this initiative and to assist this nation to address the annual drowning of approximately fifteen thousand Filipinos was enormous, and also consistent with our mandate as a humanitarian organisation. However, as with any initiative, there was a financial implication and prior commitments that would be difficult to overcome for the Society to respond.

Up to this point, the staff employed through the national office in Sydney had overseen the organisation's involvement in international development in the Asia Pacific region. In a number of instances it was supported through Australian International Aid and in partnership with the Alliance for Safe Children (TASC) in Bangladesh, Vietnam and Thailand.

The Philippines was not a priority for any of these organisations, and in my view it was one that required a different approach to the previous models. To me, this challenge epitomised the Society's primary motto of *Quemcunque miserum videris hominem scias* (whomsoever you see in distress, recognise in them a fellow human being).

The approach that I was convinced would provide a solution was to utilise the expertise and knowledge of the volunteer members of the organisation to provide support in the development of the Philippine Life Saving Society (PLS). A great number of our volunteers have a link to education backgrounds due to the main activity of RLSSA being in conducting life saving and water safety programmes for children.

It required a great deal of persistence on my part to get the initiative underway as there was a lack of commitment from the national staff to support and assist with the project. I believe, from the many conversations with national staff, that this reluctance was based on a lack of confidence in the capacity of volunteers to represent the Society to the same standard as the professional staff.

Nevertheless, I had the confidence and the intent to make this endeavour meaningful, and I believe I had the capacity to focus on the five main concepts of Malle and Guglielmi (2006:321) of:

1. Having the desire or purpose in changing a behaviour or event or situation.
2. A belief in myself to have contemplated the results or consequences regarding the intent.
3. An intention to carry out the intent with complete comprehension of preparing and planning.
4. Awareness of the actual intent being performed.
5. Possessing the skills, knowledge, support and courage to execute the intent.

These skills and capacities were congruent with my values, and the Philippines Life saving Society project gave me the opportunity to use everything I could offer and everything I had learnt to date to support, engage and develop volunteers, both Australian and Filipino, to reduce the number of drowning fatalities in the Philippines.

My intention from the beginning has been to develop the skills and knowledge of Filipinos in order for the PLS to own the issues and for RLSSA to be a mentor/coach that would support and encourage PLS members to take ownership and to set the direction. There had been too many other interventions by RLSSA in the Pacific Islands, which, although quite positive in the work undertaken, created a reliance on RLSSA for ongoing resourcing and did not build the capacity and autonomy of those groups.

For me, as the designated leader, it was critical to exhibit behaviour akin to Lord Chesterfield (1694-1773) and to “never seem more learned than the people you are with. Wear your learning like a pocket watch and keep it hidden. Do not pull it out to count the hours, but give the time when you are asked.”

The leaders of the of the PLS had established a stretch goal of establishing a ‘lifesaver in every family’ who had the ability to save a life in an aquatic

environment or apply cardiopulmonary resuscitation in an emergency. It was not for me to question their goal, but I felt it was important to assist them in developing the strategies and to guide them through some strategic questioning to develop and refine the methodology that could be implemented.

Culturally, Filipinos appear to bear the influence of the United States of America and sound more American than Asian in a number of aspects of surface culture, such as music and dress, but their behaviour in most other respects remains informed by their Asian values and traditions, even their strong affinity with Christianity. I soon realised that agreement in verbal discussions did not necessarily indicate comprehension, as, culturally; there is a tendency to agree with any discussion or suggestion that is raised. It had not taken long to realise this. I began to alter my quality of engagement with them in order to check, respectfully, what it was they believed they needed to achieve their goal and what it was we could offer that would not be about imposing our ways on them. I did this through developing questions that would elicit the information and promote thinking that would support planning – questions such as: How will you communicate that idea? What resources do you have to enable the outcome?

This approach provided a point of reference for any expectation that RLSSA would solve the issues or be there to undertake what should be the responsibility of the PLS, otherwise they would never be able to have ownership, and without ownership they could not go on to modify it over time, adjusting to their changing needs and circumstances. I had learned from previous works that my basic instinct to rescue, to be the heroic leader, should always be curbed. One cannot be there to save the same person every time they go swimming, which would be the case if the person you rescued the first time was not taught to learn how to support themselves. Filipinos, individually and as a nation, have lots of elements within their circumstances that are 'trapping'; they are subject to extreme weather systems and poverty, and have a large population numbers scattered throughout seven thousand islands, all of which make it hard for people and families to progress.

I was aware of previous international work in Asia and the South Pacific by our own organisation and that of Surf Life Saving Australia where expensive equipment was donated and courses were conducted with no long term impact. My assessment of that failure in the previous examples was that there was no infrastructure within the respective countries to support the take up of the initiative.

Long term sustainability is required by the PLS in order to partner with RLSSA, as well as other organisations domestically and internationally, to further their goals and objectives. During my visits it became apparent that they had made significant progress, with strong affiliation demonstrated with the Philippine Swimming Association and the Philippine Coast Guard Auxiliary.

Not only has this PLS project initiative seen some remarkable developments in a short space of time but there has also been some notable revelations for myself and for the volunteers that I have had the pleasure of leading in the Philippines. Since the initial enquiry in 2007, three missions to the Philippines in 2008, 2009 and 2012, as well as a PLS delegation to Australia in 2010 and Vietnam in 2011 the PLS has achieved:

- the formation of the Philippine Life Saving Society (in affiliation with the Philippine Swimming Association);
- in excess of 2000 people trained to Bronze Medallion level throughout the Philippines;
- formal links established with Philippine Volunteer Coast Guard, Philippine Swimming and Philippine Olympic Federation;
- briefings conducted for resort owners and government representatives on water safety, lifeguard training and drowning prevention;
- establishment of regional operations at Luzon, Visayas and Mindanao to coordinate and promote programmes within the local community;
- Philippine Life Saving Society accepted as full member of the International Life Saving Federation;
- participation in the Australian Water Safety Conference and professional development in life saving rescue awards and sport;

- participation at the World Conference on Drowning Prevention; and
- initial life saving competition conducted for the selection of a Filipino team for the Rescue 12 World Championships. (Baker and Scarr 2012)

Most of these achievements have arisen as a result of the commitment, dedication and discipline demonstrated by the members who have become part of the Philippine Life Saving Society. Generally, from my observations, these attributes are much stronger in comparison to those exhibited by their colleagues here in Australia. (where deaths by drowning number 300 per year). While Australia has many thousands of people who volunteer their time and service to safeguard many of our waterways, the personal sacrifice is not as great in comparison to what I have witnessed by the PLS members.

The Filipinos have adopted life saving as a survival strategy rather than as a valuable recreational activity. For these people, the achievement of qualifications not only provides the capacity to save the lives of others but it enhances their status in the community and, in some instances, provides a means of earning an income as an international lifeguard. The adopted motto of the PLS is *Pang Habang buhay ito* (for life). This ideal is reinforced regularly in words and in practice, and is stressed when members are being inducted after completing their qualifications through what is known as a 'commitment ceremony'.

The Philippines is a country that is classified by the World Health Organisation as a Low Middle Income Country (LMIC). It has a large numbers of drowning deaths every year, and the passion and commitment that I have witnessed first-hand is understandably commendable.

My involvement as mentor and leader of the many successful PLS initiatives have been extremely enriching and rewarding. These experiences encourage me greatly to want to give more of my time and knowledge to assist the efforts of these people in realising their ambition to have a life saver (that is, being

able to save a life) in every family in the Philippines (see Appendix 26 – Great Titan Sports Festival Report 2012).

Although the hours that I still spend involved in life saving exceeds what many people might spend at paid work, the rewards are incalculable. Whether my contribution is patrolling a stretch of beach on the Queensland Gold Coast, providing leadership within my club as the club captain, chairing swimming and life saving manual reviews as the national education and training advisor, working on policy as a member of the Recue Commission of the International Life Saving Federation, or working with my colleagues from the Philippine Life Saving Society the satisfaction and development is two way and something that can not be acquired through formal study.

The Order of Australia (OAM) which was awarded to me in 2012 for contributions to the community through life saving and education, is one I proudly accepted as a representative of the educational profession. (Honouring Australia 2012)

Conclusion

This statement has provided me with an opportunity to explore the significance of some of the public works that have been high impacting in a professional context and highly developmental for me at crucial periods during my career.

The attraction in undertaking various activities and projects, and the fact that they were challenging and new, provided a degree of excitement. Being forced to work out of my own area of comfort was, in many ways, the stimulus for wanting to accept more projects, as the planning, strategising and confronting problems and issues presented a huge change from routine roles. The public works also provided ways of learning that held more excitement than undertaking further academic study, and that is still relevant today.

The personal learning and development that were realised and achieved during this period, and which are still evolving, included project management skills, curriculum development, quality management, change management, andragogy and work based learning.

Of these learnings, there have been some that were critical and very beneficial to me as my career progressed. For example, the ability to work with colleagues and consultants required skills and knowledge in areas such as project management and change management, the ability to apply competence in strategic planning, business and financial planning and human resource management.

My attributes in the human resource management field were certainly gained largely through the public works, although my skills in this area were also honed through carrying out my duties and responsibilities in the senior positions held as a director in the TAFE sector, a principal in the education department and as National President of the Royal Life Saving Society Australia.

It is fair to say that the public works in relation to the Australian VET system have not been equalled in terms of the amount of change applied to the public vocational education and training provider, and that the opportunities presented during this period were unique in terms of the quantity and significance of the changes. In a recent conversation with a colleague I mentored into the TAFE sector and who is currently the Director of Southern Queensland Institute of TAFE, it was confirmed that the amount of change, and the complexity of that change, in the vocational education and training sector at that time has not been surpassed.

However, during this conversation, my colleague revealed that a statewide review process of TAFE Queensland has recently been completed and may bring about another period of significant change in terms of structural reform to TAFE institutes and for students seeking enrolment into the TAFE system.

At the time of the public works, the intended goals were to initiate a “significant move towards a VET sector driven by industry needs and that the pursuit of this goal continues today...VET organisations themselves need to become high-performing, characterised by creativity, innovation, flexibility and competitiveness.” (Mitchell and Young: 2001:3)

There is no understating the significance of those challenges and I concur with the statement by a former colleague when describing the impact of the changes on the TAFE Queensland college system in attempting the amalgamation of large numbers of employees. “While still meeting delivery and business targets has [had] absorbed focus, energy and resources. The necessary concentration on implementing new structures, system and processes and creating a shared culture from the separate social capital of the [three previously competing colleges] which integrated has been demanding and taxing.” (Lawrence 2003:9)

While the capabilities that I gained have supported me through a number of career appointments, it is difficult not to feel that these are not unique in the broader context but are, rather, part of what many practitioners would suggest

are requirements for people working in positions of management. I suggest that many senior managers have a similar range of capabilities, either learned in the workplace or through formal study, as it would not be possible to function effectively without them.

John Stevenson supports this view, suggesting, “the need for rich connections between spontaneous and scientific ways of knowing is reinforced by the findings that professionals develop an embodied kind of encapsulated knowledge after years of experience.” (Stevenson 2007:27)

The public works presented here identify ‘what’ major initiatives were undertaken and ‘how’ they were instigated in the workplace. The question of ‘why’ was about the needs of change to be implemented at the time and that the works were crucial in the development of the organisation and the people within the organisation.

The ‘how’ aligns with theoretical frameworks, although the overall approach is more closely aligned to the theories expressed by advocates of action learning and organisational development. These embody adult learning principles, as they build on the experience and knowledge of people and ask new questions that, in turn, result in innovation and new knowledge.

In accepting the various challenges that some of the works outlined in the context statement have provided, the key learnings for me include a belief that:

1. External experts don’t own the problems; they belong to the people in the organisation, as do the solutions.
2. Questioning the status quo enables critical development of alternative strategies or solutions to problems and should be encouraged.
3. For people to be able to question, they need to have confidence and self-esteem.
4. For people to have the courage to question requires the organisation to have a learning culture.
5. The greatest challenge and learning occurs when we work on unfamiliar problems and in unfamiliar environments.

6. In some circumstances, not being part of the hierarchy enables greater flexibility and an ability to obtain alternative perspectives to situations than people in formal leadership positions.

Prior to the early 1990s many of the senior managers in TAFE were advocates of the work of Peter Senge's, as detailed in *The Fifth Discipline*. Although in my view this work created some dialogue, the rhetoric did not result in any specific targeted outcomes or agenda by senior managers in implementing the strategies. (Senge 1990)

Another theoretical approach to learning that gained considerable favour during the 1990s was the work of Michael Marquardt. I certainly hold the opinion that Marquardt's approach is a more thorough and well conceived model, and I was fortunate at the time to participate in professional development based on his book *Building the Learning Organization*. (Marquardt 1996)

Marquardt proposes that a successful learning organisation will possess the capability to:

- anticipate and adapt more readily to environmental impacts;
 - accelerate the development of new products, processes and services;
 - become more proficient at learning from competitors and collaborators;
 - expedite the transfer of knowledge from one part of the organization to another;
 - learn more effectively from its mistakes;
 - make greater organizational use of employees at all levels of the organization;
 - shorten the time required to implement strategic changes; and
 - stimulate continuous improvement in all areas of the organization
- (Marquardt 2:1996)

After my work over the past thirty years, I still support these propositions and would add to the list:

- provide a culture that encourages questioning;

- provide a culture where management talks with colleagues, not at them;
- celebrate achievement regularly ;
- embrace work based learning; and
- share their stories.

The appeal of Marquardt's model is that it aligns with so many of the challenges that confront public and private organisations. It acknowledges the proposition that there are levels of learning for individuals as well as organisations and advocates for people's ability to positively impact on the learning to the benefit of all parties.

I have come to highly value the application and understanding derived from recognising these traits. The work that had the greatest impact and success for me involved managing change, where it was paramount for people to recognise and accept the change, and for me to assist them to learn as much as possible, in order to adapt and develop their personal models and capacity to apply new thinking and/or approaches.

Various disciples of change that I have either studied or encountered and who have been influential during my professional career include Peter Drucker (1995), Tom Peters (1997), David Bradford and Allan Cohen (1998) and Doug Stace (2000). These people have provided me with some insight into managing the notion of change, consistently placing a strong emphasis on developing shared visions, adopting a plan and advocating the need for the strategic application of resources.

The form that has evolved through my work as my personal approach to managing change includes facilitating, or providing, professional development that would be recognised within the Australian Qualifications Framework (Australian Government 2011); encouraging successful applications for organisational professional development funding through the Australian Flexible Learning Framework; supporting individuals in applying for project roles and/or career opportunities; and generally being a 'sounding board' and

providing input for specific work related queries that people may have initiate with me, or vice versa.

Since completing the public works, in subsequent applications of change and leadership roles, I have endeavoured to identify key people, through the quality of their work, to 'champion the cause'. These are people who have a genuine interest and desire to learn. I offer support to develop their knowledge through personal mentoring, encourage them to seek broader professional development learning, get them to recognise their work based achievements and provide them with the opportunity to showcase their achievements in organisational development with colleagues and peers. It is also important not to apply increased workloads to those already working to capacity, as I have experienced too often the flawed approach by some decision makers in offloading more work to people who achieve outcomes.

Every individual has something to contribute. It is important that people tell their story and stand up at workshops and conferences with their colleagues to inform and to learn about what has worked or not worked in the workplace.

We should know and understand the business that we are in and the outcomes that we need; not those that we want. These outcomes must draw on our knowledge, current information, our relationships and, ultimately, that 'inner voice' that tells us that this is the right approach. Only then will they become a reality.

After all, a workplace activity should be about "extending one's understanding of experience in terms of all of the experiences already understood. That is, for a new situation to be truly meaningful, it needs to be related to understanding of other activities". (Stevenson 2007:27)

The documented account outlines the essence of life-long learning and captures what I would describe as the Trapped, Attempt, Persevere and Freedom Cycle as illustrated in the following diagram.

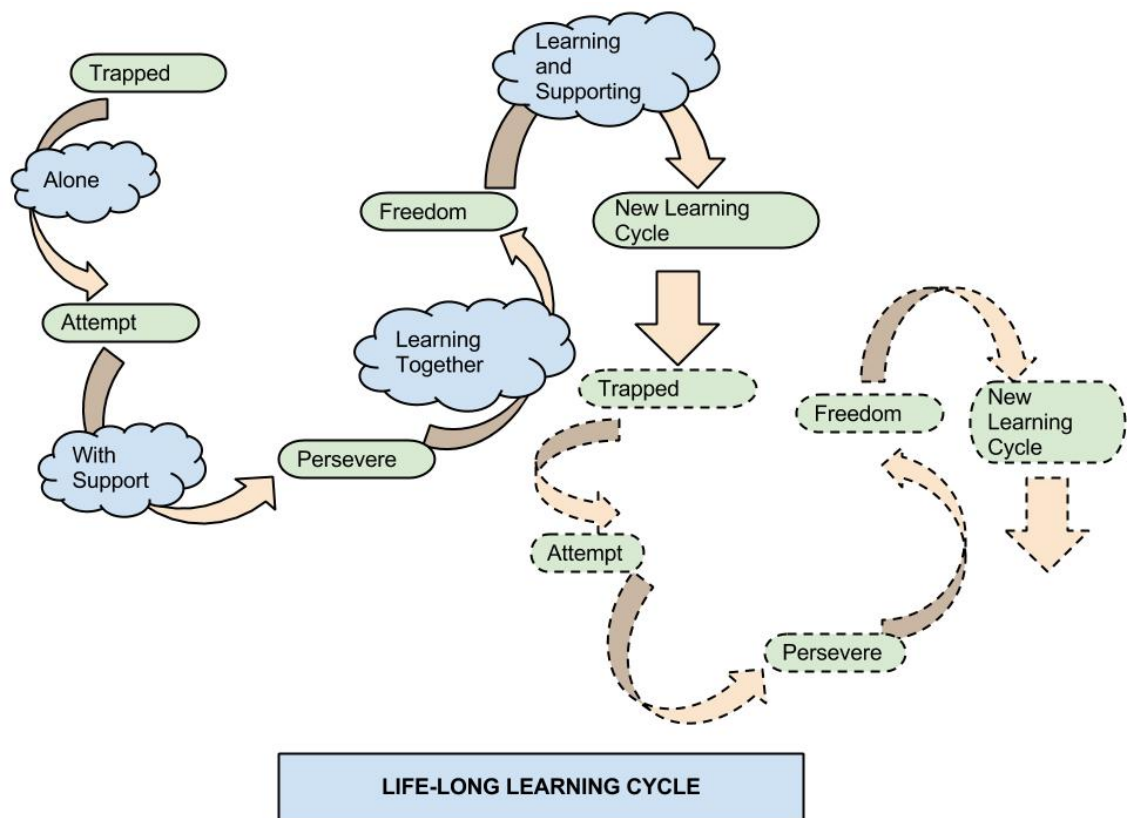


Figure 4 Life-long Learning Cycle

When people engage in public life (professionally or voluntarily) as ‘learners’ and encounter a situation that is unfamiliar to their knowledge and/or experience they can feel isolated from their environment and almost ‘trapped’ by the feeling of inadequacy.

If they can apply some of their basic skills to ‘observe and listen’ to the messages that are in their environment they can usually learn that there are areas of support and processes that address their concerns. With this support identified, they can then ‘attempt’ to learn about the options they might have available to them.

To ‘persevere’ as a learner is about learning through colleagues, learning through formal study, learning through action in the workplace and developing a capacity to stretch beyond the current situation.

In this way, 'freedom' is achieved from the initial feeling of being 'trapped' – that is, the freedom to continue learning with others and the organisations that they may join along the way, and absolute freedom to support and motivate others in their learning.

The statement conveys some of my 'learning' story and highlights the ability to be able to make a difference in the workplace. This is about self-fulfilment and satisfaction. When you spend up to eighty hours a week working (as I did during this period), one really does not want it to be about how many documents were signed, the number of memorandums written or the total hours spent attending meetings. It has been my greatest personal achievement to be able to say that my contribution has been far more than that, and this has made it worthwhile.

I am not an academic. I am more a translator of regulations and policies. I am a practitioner. I am sometimes innovative and subversive. I go about gaining knowledge and experience through an interplay of formal and experiential learning, and always enjoy a challenge. For me, every action undertaken has to lead to some improvement in the human condition. This pursuit has been, and still is, an interplay between many drivers, influences and vested interests that range from the personal to the political. It must draw on innovation and subversion, in the sense of thinking outside the box, to be successful. Fundamental to a 'good' life is a useful one. I hope I have helped others to see that they are useful in their own eyes and in the eyes of society, and that they can act to make things better for themselves and their communities. It has certainly worked for me.

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LIST OF APPENDICES

No.	Description	Format
1	Engineering Trade Certificate	Printed
2	Advanced Certificate in Drafting	Printed
3	Diploma of Teaching	Printed
4	Bachelor of Education	Printed
5	Master of Education	Printed
6	Project Management Certificate	Printed
7	The Dacum Process	Printed
8	National CAD Projects Letters	Printed
9	Situational Leadership II Certificate	Printed
10	Computer Aided Drafting Report	Printed
11	Computer Aided Drafting Modules	Printed
12	Mapping Information for CAD Drafting Units	Printed
13	Quality Management Appointment Letters	Printed
14	Certificate in Quality Assurance Auditing	Printed
15	Membership Certificates from Australian Organisation for Quality	Printed
16	Quality in Teaching and Learning at Toowoomba College of TAFE	Printed
17	Implementing Quality at Toowoomba College of TAFE	Printed
18	Quality Management Letter IV	Printed
19	Quality Assurance Testimonial Letter	Printed
20	Videolinq Referee Statement	Printed
21	Staff Scholarship Letter	Printed
22	TAFE Staff Scholarship Report	Printed
23	Flexible Learning Reference	Printed
24	BSDE Flexible Learning Plan	Printed
25	Education Queensland Learnscope Project Plan	Printed
26	Great Titan Sports Festival Report 2012	Printed
27	RLSSA Position Statement	Printed

Appendix 1



QUEENSLAND

DEPARTMENT OF EDUCATION
QUEENSLAND
TECHNICAL EDUCATION BRANCH

Trade Course Certificate

This is to certify that

SHAYNE D. BAKER

has successfully completed the

FITTING AND TURNING TRADE COURSE

and has achieved the following results

STAGE I

Level PASS

Dated this the

FIRST day

STAGE II

Level PASS

of MARCH 19 78

STAGE III

Level PASS

Issued without alterations or erasures

R.H. Wallace

Director of Technical Education

G. Gilman

Director-General of Education

Appendix 2



Advanced Certificate

This is to certify that SHAYNE DONALD BAKER
has successfully completed the CN541 ADVANCED CERTIFICATE OF DRAFTING
at the QUEENSLAND DISTANCE EDUCATION COLLEGE
Document number AC Z03580
issued without alterations
or erasures
Dated this the SEVENTH
day of DECEMBER 19 89

Chief Executive

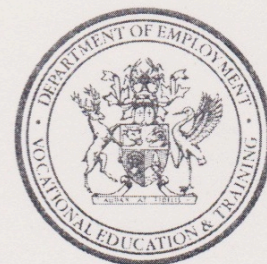
B. Keane

Executive Director (TAFE)

J. L. Swan

Principal

John E. Parler



Appendix 3

**Brisbane
College of Advanced Education**

By authority of the Council of the College
be it known that

SHAYNE DONALD BAKER

having fulfilled the conditions prescribed
by the College is this day awarded the

DIPLOMA OF TEACHING
Secondary

Given under the Common Seal
of the Brisbane College
of Advanced Education
on the 13TH day of APRIL, 1987

David Fraser

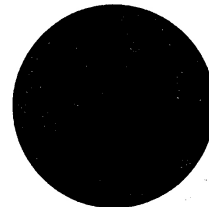
Chairman of the Council

P. B. Bosman

Director

J. H. Carter

Registrar



*This is to certify this is a true
photocopy of the original Certificate.
A. Strochfeldt J.P.*

Appendix 4

UNIVERSITY COLLEGE OF
SOUTHERN QUEENSLAND



The Council of the
University College of Southern Queensland
confers on

Shayne Donald Baker

who has passed all examinations and fulfilled
all prescribed conditions, the award of

BACHELOR OF EDUCATION

FROM THE UNIVERSITY COLLEGE OF SOUTHERN QUEENSLAND

Dated this *nineteenth* day of *April* 1991

Chancellor
*This is to certify this is a true copy
of the original Certificate.*
A. Stiefeldt J.R.

Vice-Chancellor

Appendix 5

THE UNIVERSITY OF
SOUTHERN QUEENSLAND



*The Council of the
University of Southern Queensland
confers on*

Shayne Donald Baker

who has passed all examinations and fulfilled
all prescribed conditions, the award of

MASTER OF EDUCATION

with a major in Educational Management

Dated this *fifteenth* day of *April 2000*

Chancellor

Vice-Chancellor

Secretary to Council

0010645

*This is to certify this is a true photocopy
of the original certificate.*

A. Brookfeldt J.P.

Appendix 6

Certificate of Achievement

This is to certify that

SHAYNE BAKER

has completed the course

PROJECT MANAGEMENT

conducted by

Professional Development Branch

Department of Employment, Vocational Education, Training and Industrial Relations

from 15 October 1991

to 16 October 1991

Course Content

*Scope and Plan Project
Schedule Staff and Materials
Control Time and Costs and Paperwork
Define and Maintain Quality*



Professional Development Branch

A. E. Kuis

Manager

Appendix 7

DACUM Information Sheet

What is DACUM (Developing a Curriculum)?

DACUM is a relatively new and innovative approach to occupational analysis. It has proven to be a very effective method of quickly determining, at relatively low cost, the competencies or tasks that must be performed by persons employed in a given job or occupational area.

The profile chart that results from the **DACUM** analysis is a detailed and graphic portrayal of the skills or competencies involved in the occupation being studied. The **DACUM** analysis can be used as a basis for (1) curriculum development, (2) training needs assessments, (3) student achievement records, (4) worker performance evaluations, (5) competency test development, and (6) job descriptions.

DACUM has been successfully used to analyze occupations at the professional, technical, skilled, and semiskilled levels. **DACUM** operates on the following three premises: (1) expert workers can describe and define their job more accurately than anyone else, (2) an effective way to describe a job is to define the tasks that expert workers perform, and (3) all tasks, in order to be performed correctly, demand certain knowledge, skills, tools, and attitudes.

A carefully chosen group of about 8-10 experts from the occupational area forms the **DACUM** committee. Committee members are recruited directly from business, industry, or the professions. The committee works under the guidance of a facilitator for two days to develop the **DACUM** chart. Modified small-group brainstorming techniques are used to obtain the collective expertise and consensus of the committee.

The **DACUM** committee is carefully guided through each of the following steps by the facilitator:

1. Orientation
2. Review of job or occupational area description
3. Identification of general areas of job responsibility
4. Identification of specific tasks performed in each of the general areas of responsibility
5. Review and refinement of task statements
6. Sequencing of task statements
7. Identification of general knowledge and skill requirements of the occupation, tools, equipment, supplies, materials used, desirable worker traits, and attitudes.
8. Other options, as desired (i.e., identification of entry level tasks)

Because of their current occupational expertise, committee participants do not need to make any advance preparations. Participants on past **DACUM** committees, without exception have found the activity to be a professionally stimulating and rewarding experience.

Appendix 8



**Bureau of Employment, Vocational and
Further Education and Training**

Reference: MP:TLG:0530
Telephone: (07) 237 0400
Fax: (07) 237 1326

MEMORANDUM

**MR DON WILLETT
SENIOR INSTRUCTOR
ENGINEERING
TOOWOOMBA COLLEGE OF TAFE**

Through the Director

RE: COMPUTER AIDED DRAFTING NATIONAL PROJECT

Following our meeting and discussion on Thursday, 7 March 1991, I wish to confirm some of the arrangements for the project.

- a) It is approved that Mr Shayne Baker be the convenor of the project. As discussed with you, Shayne will be required to dedicate the equivalent of one day per week averaged over the 9 months duration of the project. This may be organised during college time or his own time and is left to your discretion in order to fit best both your planning arrangements and, allow satisfactory completion of the project's outcomes.
- b) The hiring of a consultant as a researcher as well as part-time payments to the various curriculum writers will be arranged by my Branch on the basis of nominations and approval of work done by Shayne as the field officer.
- c) All travels and meetings will be arranged by my Branch on details supplied by Shayne.
- d) The following funds of the project will be transferred to you in two payments:

Convenor	\$ 8 500
Secretarial	\$ 3 700
Graphic Design	\$ 2 000
Teleconferencing	\$ 200
Printing	\$ 1 000
Incidentals	\$ 1 000

\$16 400

\$ 8 200 on 15 March 1991
\$ 8 200 on 1 July 1991

0530

- 2 -

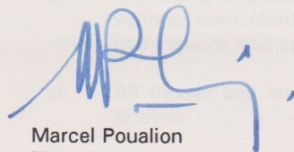
- e) It is envisaged that the project will consist of developing approximately 12 modules of 40 hours duration to a standard acceptable to all States, Territories and Training Authorities. The modules will be compatible with the NMEC format.

The agreed targets are:

1. To complete a skills analysis report and progress report for the ACTC meeting of 22 May 1991. Deadline for documents to reach my Branch: 2 May 1991.
 2. To complete a final report with full syllabus documentation in a modular format for the ACTC Meeting of December 1991. Deadline: 15 November 1991.
- f) My Branch will initiate the process by requesting nominations from other TAFE authorities to be addressed to Shayne directly.
- g) Shayne has been briefed on the operations and conditions of National Projects and will be responsible for following the guidelines and recommendations.

Would you please confirm your approval of the above by simple fax to me on: (07) 237 1326

I congratulate you and wish you and your college the best of success in this exciting endeavour.



Marcel Poulion
Manager
National Curriculum Projects Branch

15/3/91



Department of Employment, Vocational Education, Training and Industrial Relations

Bureau of Employment, Vocational and
Further Education and Training

Reference:

Telephone:

Fax:

MP:SM:0567

(07) 237 0400

(07) 237 1326

Mr S Baker
Instructor Training Consultant
Toowoomba College of TAFE
TOOWOOMBA QLD 4350

THROUGH THE DIRECTOR

Dear Mr Baker

This is to confirm your appointment as the convenor of the National Project on Computer Aided Drafting, to be managed by Queensland.

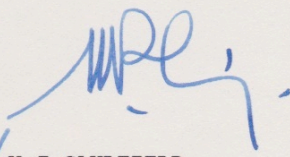
Any administrative matter (i.e. air travel, payments, accounts, claims for expenses, etc.) should be cleared with Mr Marcel Poualion, Manager, National Curriculum Projects Branch, on (07) 237 0400 prior to any commitments being made.

All Curriculum content and implementation matters (i.e. Contact with other teachers/colleges; Curriculum issues etc.) should be cleared with the Associate Director, Engineering, Mr Derek Merrin.

A copy of the letter addressed to your college, outlining the operational details discussed at the meeting of 7/3/91 is attached for your information.

I congratulate you on your appointment.

Yours sincerely

for/ 

V J CAULFIELD
Director
Division of Curriculum Design
and Development

22/03/91



COMMUNITY ADVISORY COUNCIL TOOWOOMBA COLLEGE OF TAFE

Tel.: (076) 32 3977
Fax No.: (076) 39 2682

124 Margaret Street
TOOWOOMBA QLD 4350

Our Ref: April 8, 1991

Mr. Shane Baker,
School of Technology,
Toowoomba College of TAFE,
TOOWOOMBA. Q 4350

Dear Mr. Baker,

On behalf of the Council I would like to extend to you our congratulations for your participation in writing the national core curriculum for computer aided design.

We are delighted that you have been chosen for the project and are willing to undertake it. Through your efforts the Toowoomba College of TAFE will be increasingly recognised as a centre of excellence for CAD/CAM.

Yours sincerely,

DON STEVENS,
CHAIRMAN.

Please address all correspondence to

The Chairman
Community Advisory Council
Toowoomba College of TAFE
P O Box 80
Toowoomba Q 4350



Appendix 9

Certificate of Achievement

This is to certify that

SHAYNE BAKER

has completed the course

SITUATIONAL LEADERSHIP II

conducted by

Professional Development Branch

Bureau of Employment, Vocational and Further Education and Training

from **15 April 1991** to **17 April 1991**

Course Content

Flexibility

Contracting for Leadership Style

Praising

Diagnosis

Goal Setting

Reprimanding



Professional Development Branch

Manager
Manager

Appendix 10

REPORT ON THE NATIONAL CURRICULUM PROJECT IN

COMPUTER AIDED DRAFTING

Prepared for the
Australian Committee for Training Curriculum
(ACTRAC)

By
Shayne D. Baker
Project Manager
Toowoomba College of TAFE
for National Curriculum Projects Unit
TAFE ♦ TEQ

Final Draft
December 1991

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1.0 EXECUTIVE SUMMARY

Enclosed is the final report on the National Curriculum Project in Computer Aided Drafting (CAD), a project approved at the September 1990 ACTC Meeting.

The report provides detailed information on the processes involved in the development of the curriculum, such as the background to the project, the methodology used, timelines, the people involved in the project, project outcomes, conclusions and the recommendations of the National TAFE Task Group.

Eleven modules have been designed for Computer Aided Drafting courses in Technical and Further Education Colleges throughout Australia and for Private Providers. The modules are generic, so can be implemented in various discipline areas utilising the technology, such as mechanical, architectural, civil and fashion drafting.

The modules have been developed using a competency-based format and cover three distinct levels of competencies.

Although the emphasis in these modules is on the acquisition of general concepts and techniques required by competent CAD operators, the modules are also generic with respect to the hardware and software that can be used.

1.1 RECOMMENDATIONS

Recommendations that have been agreed to by the National TAFE Task Group include:

- 1 That ACTRAC approve the curriculum for Computer Aided Drafting for implementation in 1992.
- 2 That a major review be conducted every two years in the field of Computer Aided Drafting.
- 3 That another National Curriculum Project be funded to:
 - a Investigate existing resource material suitable for use with a competency based curriculum.
 - b Design teaching/learning resource kits for each National CAD module.
- 4 That clear guidelines be established for achieving national standards.

2.0 BACKGROUND OF PROJECT

Previous to the development of this National Curriculum, courses in CAD were developed rapidly and in isolation to satisfy the new demands that this technology had created. The majority of these courses were developed with little industry research or input to support the program.

In 1989, industry and TAFE personnel in Queensland were invited to come together to form a Queensland CAD Curriculum Advisory Committee. The main strategy formulated by the Committee in attempting to develop a curriculum that would satisfy industry requirements was to conduct an industry wide survey of training needs. (Refer to Appendix A: Report on a Survey of Training Needs for Computer Aided Drafting and Design). The survey of 1700 CAD users from major industries and contract drafters revealed that the majority of training was done in-house with little input from TAFE.

It was also obvious from this survey that there was a lack of formal structure for people undertaking CAD courses and very little opportunity to articulate with higher level programs, such as advanced certificates and associate diplomas.

Against this background the National Computer Aided Drafting Curriculum Concept Proposal was developed and submitted to the ACTC for approval.

2.1 PROJECT OBJECTIVES

The project objectives, as identified in the concept proposal approved by ACTC are:

- * To investigate existing TAFE programs in CAD at three levels of Basic Operator, Advanced Operator with Industry Specific Skills and Systems Manager.
- * To identify industry skills and needs for training at the three levels identified above.
- * To investigate and develop course structures which integrate manual drafting, broad technical skills (ie numerics) and management skills in modular format in order to achieve particular vocational outcomes.

3.0 PROJECT METHODOLOGY

The project was developed in three phases:

3.1 Phase One - Planning and Research

During this phase of the project the following planning and research activities were conducted:

- * Timelines for the National CAD Project were developed (Appendix B).
- * Research on curriculum development was undertaken.
- * A National TAFE Task Group was formed (Appendix C).
- * An Industry Advisory Group was established (Appendix D).
- * A curriculum research assistant was appointed.
- * A Report of a Survey of Industry Needs in Computer Aided Drafting and Design was prepared.

3.2 Phase Two - Team Development, Information Sharing and Curriculum Planning

- * Officers were appointed by their respective State/Territory authorities.
- * They were contacted in writing initially by the Project Manager.
- * More personal communication by way of telephone calls to welcome task members on to the project team followed the initial written communication.
- * Each TAFE representative was then supplied with an information kit comprising material that would assist them at the initial national meeting. Information on the project that was distributed to the TAFE representatives included:
 - * A list of the TAFE Task Group members including their phone and facsimile numbers.
 - * A list of the Industry Reference Group members including their phone and facsimile numbers.
 - * The Project Plan and Objectives.
 - * An outline of the DACUM group process method for curriculum development.
 - * A copy of an existing CBT module from the NMEC project.

- * Prior to the National Meeting in Brisbane, Ms Dell Randall was appointed as Curriculum Research Assistant and was responsible for producing the "Report of A Survey of Training Needs in Computer Aided Drafting and Design".
- * A National Meeting was held in Brisbane on June 3,4 & 5 1991. (See Appendix E: Report on TAFE Project Team Meeting) Agreement was reached at this meeting as to:
 - * What skill competencies were common at the three levels described in the project objectives.
 - * Content that would satisfy a competency based training module suitable for implementation as a multi-discipline program.
 - * The need for a program suitable for implementation regardless of the hardware and/or the software being used for training.
 - * The need for a program that will provide students with the opportunity for articulation into higher level courses.
 - * Team members volunteered to undertake the writing of particular module descriptors and to liaise with their colleagues and industry groups to gain feedback and suggestions. This information would assist in developing a national curriculum that would satisfy the core competencies of operators utilising this technology.
 - * Following the meeting in Brisbane the team members submitted learning outcomes to the project manager for distribution prior to a national teleconference.
 - * An analysis of the proposed learning outcomes was completed by Ms Dell Randall from a curriculum perspective and as an unbiased observer prior to the national teleconference.
 - * National teleconference was held on 7 August 1991 to discuss the learning outcomes and feedback on these from all sources - colleagues, members of the Industry Reference Group and Ms Randall.

3.3 Phase Three - Curriculum Writing and Evaluation

- * Draft modules were completed individually by project team members and were distributed to all team members prior to the second National Meeting.
- * Responses to these draft modules were sought by team members from fellow teachers, members of the Industry Reference Group and Ms Randall.

- * The second National Meeting of the TAFE Task Group was held in Adelaide on September 23 & 24 1991 (See Appendix F: Report on the National Meeting Of the TAFE Task Group). At this national meeting team members submitted responses they had received regarding the draft modules. Each response was considered by the team and draft modules were adjusted where this was deemed suitable.
- * The remainder of the meeting was devoted to analysis and further refinement of each of the modules.
- * Following the Adelaide meeting the necessary alterations were made to the draft modules, which were then distributed to the TAFE Task group members for comment by respective industry and TAFE groups.
- * Once again Ms Dell Randall was assigned the task of analysing the curriculum prior to a national teleconference to provide feedback in terms of consistency and accuracy.
- * Another national teleconference hook up was held on Monday 28 October 1991 to enable any final suggestions and comments to be discussed and incorporated into the final draft where necessary.

3.4 RELATIONSHIPS WITH OTHER GROUPS

In addition to the involvement throughout the project of the Industry Reference Group, contact has been made with the convenors of National Projects in Computing, Resource Management and Metals and Engineering. The Project Manager is also a member of the TAFE Engineering Advanced Certificate and Associate Diploma Industry Reference Group in Queensland.

The project Manager provided teachers of computer-aided drafting in Queensland, information about the curriculum at all stages of the project.

The Project Manager has agreed to be a speaker at the Queensland CAD Show, held in conjunction with a CAD Expo in April 1992 to talk on the topic of Education for CAD Drafters.

4.0 NATIONAL CAD CURRICULUM

The curriculum consists of eleven modules suitable for each of the identified areas of:

Basic CAD Operator
Advanced CAD Operator and
CAD System Co-ordinator (Refer Figure 1)

NB Some modules have pre-requisites that have to be completed prior to students gaining entry into a particular module. Please refer to the individual module descriptors.

4.1 BASIC CAD OPERATOR

Three modules are designed for the Basic CAD Operator:

CAD001	Computers and their Application to CAD
CAD002	Drawing Interpretation and
CAD003	Computer Aided Drafting 1

These modules will provide students with basic skills in computing, drawing and interpretation of the relevant Australian standard and the operation of a CAD system.

The modules have been designed in the competency based format and are suitable for people who have completed Year 10 (and above), as well as for people who possess trade qualifications and are seeking post-trade specialisation.

Tradespeople who have completed similar modules, such as NBB04 Computers in Engineering and NBB12 Engineering Drawing Interpretation and NM06 CAD1 will be eligible to apply for recognition of prior learning.

Completion of modules at the Basic CAD Operator level equates to Level 3 of the National Training Boards' Competency Framework and to a C10 level in the Metals Industry Award.

4.2 ADVANCED CAD OPERATOR

Three modules were designed for the Advanced CAD Operator:

CAD004	Computer Aided Drafting 2
CAD005	Computer Aided Drafting 3 and
CAD006	Computer Aided Drafting 4

These modules will provide students with advanced techniques for the production of CAD drawings, basic customisation techniques and basic 3D (three dimensional).

People who have completed the Basic CAD Operator level or who possess equivalent skills will gain entry to this level.

Successful completion of the competencies at the Advanced CAD Operator level equates to Level 4 of the National Training Boards' Competency Framework and to C9, C8 and C7 levels in the Metals Industry Award.

4.3 CAD SYSTEM CO-ORDINATOR

Three modules were designed for the CAD System Co-ordinator:

CAD007 Managing CAD Systems
CAD008 Managing CAD Utilities and
CAD009 Managing CAD Resources

These modules will provide people with the skills required to establish, maintain and manage a CAD facility.

Entry to this level of training is conditional upon completion of (or recognition of) the competencies required of an Advanced CAD Operator or equivalent on-the-job experiences.

Learning Outcomes for the CAD System Co-ordinator are equivalent to Competency Level 5 on the National Training Board's Competency Framework and at C6 and C5 levels in the Metals Industry Award.

4.4 OPTIONAL MODULES

Two other skill areas were identified by the TAFE Task Group as being in need of consideration at the national level; these are

- 3D drawing and
- knowledge of more than one CAD system.

The skills required for the production of 3D views rates very highly in a number of industries and there is a global trend by software designers and the suppliers of hardware to provide the technology necessary for the production of 3D views.

CAD010 - CAD 3D Drawing is an optional module and, as such, can be accessed at any one of the three levels to satisfy industry requirements (e.g. plastics, architectural and toolmaking).

CAD011 - Computer Aided Drafting Systems is another optional module that is available for training providers. It is designed to meet the needs of those who want to provide a general overview and awareness of concepts about CAD and its utilisation in industry.

5.0 CONCLUSIONS

The National TAFE Task Group is pleased to present to the ACTRAC a modular structured program in Computer Aided Drafting with clear articulation and career path as specified in the concept proposal.

The fact that it is written in the competency-based format will enable CAD drafters with existing skills to gain recognition of their industry skills.

The generic nature of the program means that the modules can be included both in courses across a variety of disciplines and at various levels of competency and be suitable for courses at a range of competency based levels and/or would be suitable as a Certificate of Computer Aided Drafting.

6.0 RECOMMENDATIONS

- 6.1 The multi-disciplinary National CAD Curriculum should be approved for implementation and released nationally so that it can be incorporated into existing programs and included in proposed programs.

- 6.2 The TAFE Task Group was concerned with the rate of change within the CAD and associated computer industry.

Our recommendation is that a major review of the CAD curriculum be undertaken within the first two years of the modules being implemented.

It was further agreed that as industry/TAFE contacts were already established by the TAFE Task Group members, it would be wise to maintain this TAFE Task Group if at all possible.

- 6.3 A high priority should be given to initiating another National Curriculum Project to:

- * Determine existing resource material suitable for use with competency based modules.
- * Establish clear guidelines for achieving national standards.
- * Design teaching/learning resource kits for each National CAD Curriculum competency based module.

- 6.4 Consideration should be given to conduct national workshops to provide professional development programs for TAFE personnel offering CAD courses and to establish national standards.

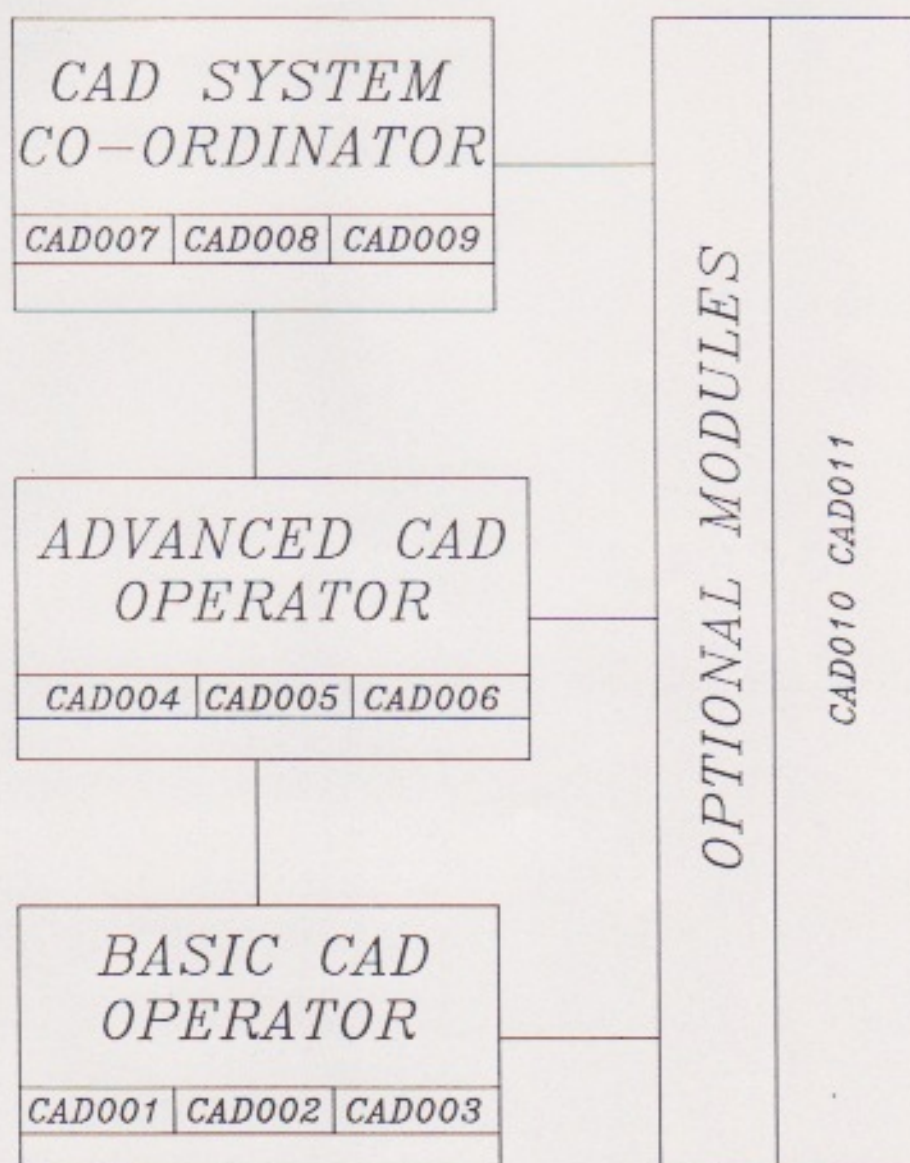
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LEVELS OF COMPETENCY OF MODULES IN COMPUTER AIDED DRAFTING.

Figure 1.



COMPUTER AIDED DRAFTING ENTRY LEVELS

- * Year 10 - Direct entry to Basic CAD Operator
- * Year 10 with trade - Direct entry to Basic Operator.(Equivalent studies of similar modules may gain entry at a higher level)
- * Year 12 - Direct entry to Basic CAD Operator. (Equivalent studies of similar modules may gain entry at a higher level)

APPENDICES

APPENDIX A

A REPORT ON A SURVEY OF
TRAINING NEEDS FOR
COMPUTER AIDED DRAFTING.

A SURVEY OF TRAINING NEEDS

FOR

COMPUTER AIDED DRAFTING AND DESIGN

Dell Randall
March 1991

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REPORT OF A SURVEY OF TRAINING NEEDS FOR COMPUTER AIDED DRAFTING AND DESIGN

1 BACKGROUND TO THE REPORT

This report is based on a survey conducted in 1990 by the Computer Aided Drafting and Design Curriculum Advisory Committee of the Bureau of Employment, Vocational Education and further Training in Queensland. Membership of the Advisory Committee was drawn from diverse sectors of the community, comprising representatives from private industries, the public sector and teachers at TAFE Colleges. All members were heavily involved with Computer Aided Drafting and Design.

Committee members and the sectors they represent are presented below:

Geoff Baker	Queensland Metal and Engineering Training
Shayne Baker	Toowoomba College of TAFE
Greg Beh	Public Sector Representative
Mike Gibson	South Brisbane College of TAFE
Geoff Graham	Brisbane Drafting Service
Joseph Hart	Albert Smith Signs
Dennis Kent	Institute of Engineering Associates
Trevor McColl	Mount Gravatt College of TAFE
Ian McNutt	Northpoint College of TAFE
Derek Merrin	DEVET, State Office
Jeff Murchie	Association of Design and Consulting Draftsmen
Barry Watson	B.D.S. Technical Services
David Williams	Reliance Manufacturing Co
Col Wright	Architectural Office, and AutoCAD Users Group

Rationale for Conducting a Survey:

The committee found that a proliferation of CAD courses had been developed independently of each other at the local level, resulting in considerable overlap between courses. Further, because the development of courses had occurred to address specific needs, several courses were programme-specific thereby limiting their usefulness to those who had access to specific CAD programmes. The committee agreed to conduct a survey to ascertain commonality between CAD users (generally), so that a draft course model based on an industry survey and existing programs could be developed.

The PURPOSE of the survey, therefore, was two-fold -

- (1) to gauge the needs of industry and government regarding the training of personnel to use CAD, and
- (2) to use the findings of the survey to develop structured and efficient competency based training programmes for TAFE Colleges and/or Private Providers.

2 THE METHODOLOGY OF THE SURVEY

Survey Instrument:

A questionnaire was chosen as the most appropriate survey instrument to gather data from both the public and private sectors. This form of data-collection allowed the Advisory Committee, within the time constraints imposed by their professional lives, the opportunity to obtain information from a considerable number of industries and government departments.

The questions to be included in the questionnaire were composed by members of the Advisory Committee. The questionnaire was then compiled by the Curriculum Services Division of the Bureau of Employment, Vocational Education and Further Training. Recently developed Australian and overseas curricula and syllabus documents, together with evaluative comments on their effectiveness, formed the basis for the formulation of questions and the identification of skills.

The draft form of the questionnaire was then sent back to all members of the Curriculum Advisory Committee for general discussion and feedback. The comments of committee members, who, as indicated above, represented a cross section of industry and education, were taken into account in the final format of the questionnaire.

The seven-page questionnaire, which was accompanied by a covering letter indicating the intended use of the findings, was designed in several parts. From the first section, Survey Respondent Profile, general information was sought about the respondent, the company or organization and the use of CAD within the company/organization. In the second section questions were designed around personnel training requirements, while the third and largest section of the questionnaire was a specific skill audit. Skills, in this section, were divided into three levels - (Basic) Operator skills, Productivity enhancement skills and Systems manager competencies. On the final page of the questionnaire, respondents were invited to make further comments.

A copy of the questionnaire is included as Appendix A.

Sample:

A decision was made by the Advisory Committee to send out 100 questionnaire forms to industries and government departments which were known or suspected CAD users in the metropolitan area and in a large regional city in Queensland. Committee members were asked to nominate companies and industries, in both the public and private sectors. Each committee member was then asked to hand out ten questionnaires. Several committee members made personal contact with personnel within the identified industries, others sent the forms to the company. Although random sampling techniques were not applied, the response rate to the survey was higher than usual. A further limitation of the selected sampling

technique used in this survey was that large, multinational manufacturing industries (such as those found elsewhere in Australia) were not represented. However, in terms of the skills required of CAD operators/managers, this limitation of the survey may not be significant.

3 SURVEY FINDINGS

A total of seventy-nine (79) completed questionnaire forms and an additional six (uncompleted) forms were returned. Of these six, two possible respondents indicated that the questionnaires were returned because the survey was not relevant to their work; the remaining four were returned by Australia Post, marked Address unknown. Of the 79 forms returned, ten were additional to the original 100 forms distributed, as some respondents photocopied the original forms and distributed these copies to interested personnel within their companies/organizations. While this feature of the survey is unusual and would create distortion if included in the findings of the first two sections of the questionnaire, the perceptions supplied in these copies are considered relevant in the Specific Skill Audit and are included in the findings relating to those sections.

The responses to the survey are thus 69 completed forms from the original 100 forms - a high response rate of 69% and, for the Specific Skill Audit section 79 completed forms from a possible 110 forms - another high response rate.

3.1 Profile of Respondents:

Respondents to the questionnaire varied considerably in the positions they occupied in the organizations. Positions or titles in the organization ranged from Managing Directors to CAD supervisors or coordinators. These are detailed below:

Managing Director/Manager.....	6
Director/Principal/Associate Director.....	9
Production or Section Manager.....	9
Engineer/Chief Project Engineer.....	9
Senior or Chief Draftsman.....	14
Information Systems Controller/Officer.....	3
CAD Supervisor/Coordinator.....	8
Design/Drawing/Drafting Supervisor.....	3
Design Drafter.....	3
Architect.....	2
Technical Consultant/Technical Officer.....	2
Research and Development Officer.....	1
TOTAL	69

3.2 Organisation/Company Profiles

The size of organisations and companies from which completed questionnaires were received varied from large, State government organisations which employed approximately 20,500 people to a small owner-operated business. Responses indicated that sixteen companies/organisations had more than 200 employees, with six of these employing more than 1,000 people. Of the remaining 53 companies/organisations, 9 had between 100 and 200 employees. The variety in the sizes of organisations/companies provided data from a wide cross section of business and government sectors of the community.

3.3 Fields of Business Represented

The fields of business represented in the responses are outlined below:

FIELD OF BUSINESS	NUMBER
Engineering	15
Architecture	12
Manufacturing	11
Transport (State Government)	8
Petro-Chemical	6
Housing/Land (State Government)	4
Electricity Supply/telecommunication	4
Local Government	2
Construction (house/building)	2
Surveying	2
Mining	1
Brewing	1
Storage	1
TOTAL	69

As expected, each category within the fields of business encompasses a number of different types of business within the general field. Some examples of differences within categories are given to provide illustrations of the variety of businesses/activities represented in the sample.

The general category of Engineering includes more specific responses such as Consulting Engineers, General and Specialised Machinery Manufacturing, Multidiscipline Building Management, Design and Construction, Civil/Structural and Geotechnical Engineering, Municipal Engineering and Structural Engineering.

Similarly, Architecture includes Architectural drafting, a combination of architecture and interior design, Landscape architecture and Town Planning (as well as the general response, Architecture).

The Manufacturing field includes unspecified manufacturing, cement manufacture and toolmaking, as well as the manufacture of industrial equipment, intricate valves, gaskets, explosives, packaging and food processing machinery.

The categories which relate to State Government services, namely Transport and Housing/Land, encompass responses from a number of sections/workshops within the Department in which specialised activities occur. For example, responses were received from the Railway Yard Design section, Rail Wagon Design and Maintenance workshop, Passenger Transport (Design and Mapping) Section, Aviation Administration, Road Construction and Maintenance (section) and Cartography.

3.4 CAD Systems Used

From the 69 completed questionnaires there was a total of eighty-five (85) responses indicating CAD use. Several companies/organisations had more than one CAD system in use. Although nine (9) respondents did not indicate the type of system in use, thirty-three (33) different systems were identified. The most common systems used were AutoCAD (30) and DOGS (16).

4 PERSONNEL TRAINING REQUIREMENTS

In this section, respondents were asked for their perceptions of the training requirements needed for employees in their company/organisation. Responses to this section of the questionnaire were requested as percentages. Some respondents also included additional comments concerning personnel training requirements.

Responses to the questions on the percentage of Drafting/Design employees who should be skilled at CAD operation, and at productivity enhancement are presented in Tables 1.1 and 1.2 respectively. Relevant additional comments are included after these tables.

TABLE 1.1 RESPONDENTS' PERCEPTIONS OF THE PERCENTAGE OF DESIGN/DRAFTING EMPLOYEES TO BE SKILLED AT CAD OPERATION.

% of employees to be CAD Skilled	No. of respondents
100	37
80-99	5
60-79	5
40-59	12
20-39	6
1-19	3
Nil	1
TOTAL	69

The responses to this question clearly show a great need for design/drafting employees to be skilled at CAD operation. A majority of respondents (53%) perceive a need for ALL such employees to be skilled CAD operators and a further 15% indicate that in excess of 60% of design/drafting employees need skills at this level.

Additional Comments regarding Personnel Training Needs

Many of the general comments in this category emphasized the need for more personnel with the necessary skills to operate CAD systems effectively. Comments such as, "Additional trained personnel on CAD/CAM would allow for greater utilization of unused features of the system" and "Obtaining replacement personnel with the necessary skills is at this time almost impossible", are typical of the seven (7) comments of this type.

Further comments identified a need for "competent draftsmen who are able to use a mouse as well as a pen..", and "all (CAD) operators should possess at least two years' experience on the drawing board."

Needs and suggestions about training in general included a proposal that "involvement of the industry in training would be a great advantage as you get first hand knowledge and experience." Another comment related to the location of courses, indicating that the necessity of driving to the Capital City (in this instance, Brisbane) creates difficulties. A suggestion was made that external courses be offered by TAFE for part-time Autolisp.

Industry-specific comments regarding training related to the need for courses to include "civil fields" and for "TAFE courses designed to train experienced draftsmen in the use of CAD".

Several comments were specific to the timing of CAD courses and there were requests to run "one-day" courses on CAD software updates.

TABLE 1.2 RESPONDENTS' PERCEPTIONS OF THE PERCENTAGE OF DRAFTING/DESIGN EMPLOYEES TO BE SKILLED AT CAD PRODUCTIVITY ENHANCEMENT

% of CAD Productivity Enhancement Employees	Number of Respondents
81-100%	3
61-80 %	2
41-60 %	9
26-40 %	7
11-25 %	14
1-10 %	18
<1 %	4
TOTAL	57

Number of responses which were unclear/missing 12

The perceived need for skilled design/drafting employees at this level, is, understandably considerably less than the need for skilled CAD operators. However, there is a need indicated as there was only one "Nil" response. The largest groups of respondents (46%) showed a need for between 1 and 25% of design/drafting employees to be skilled at CAD productivity enhancement.

The only additional comment which related to this area was a suggestion that "consideration should be given to using the considerable amount of expertise available within industry in any training courses especially in the advanced sections viz: productivity enhancement and system management."

In reply to the question asking respondents to designate the number of employees who should be competent systems managers,

- . 52 believe 1 - 3 design/drafting employees,
- . 5 believe 4 - 10 design/drafting employees,
- . 1 believes Nil design/drafting employees

should be competent at this level.

- . 12 responses were unclear or missing.

Again, understandably, while there is a perceived need for skilled employees at this level, the extent of the perceived need is considerably less than that at the previous levels.

Training for employees (to date) was as follows:

In-House Training	57 responses
CAE/University	16 responses
TAFE	22 responses
Private Provider	29 responses
Nil	1 response

Responses to questions relating to perceptions of CAD and CAD Training are outlined below:

	YES	NO	OTHER
. Do you believe CAD training for beginners should be integrated with basic hand drawing skills and knowledge attainment (i.e. AS1100)?	66	1	2
. Do you visualise CAD as a "Drafter's Tool", i.e. a drafter first and foremost, with CAD skills?	53	14	2
. Does your industry require awareness programs on CAD - particularly for Senior Managers?	42	26	1
. Do personnel in your industry require conversion courses, that is from one hardware/software system to different systems?	33	33	3

Responses in the "Other" column included answers such as, "Don't Know" and "It depends" type answers as well as no response to the question.

5 SPECIFIC SKILL AUDIT

In the three parts of this section of the questionnaire, respondents were required to rate the level of importance of identified skills on a 1 - 5 scale, 1 indicating "Low Importance" and 5 "High Importance". Findings in this section are presented as MEAN responses from 79 respondents, in Tables 2.1, 2.2 and 2.3.

While the presentation of mean responses provide a broad overview of the level of importance given to particular skills, they do not indicate ranges of responses for any given item/skill. Therefore, those skills which drew a wide range of responses are identified after each table.

Any further comments which relate to the Specific Skills Audit are included in the section, "Additional Comments".

TABLE 2.1 INDUSTRY PERCEPTIONS OF THE LEVEL OF IMPORTANCE, INDICATED BY MEANS, OF BASIC CAD OPERATOR SKILLS

Basic Operator Skills		Mean Responses
(i)	Draw using (a) keyboard	3.10
	(b) Digitiser/mouse	4.60
(ii)	Operate CAD system in stand alone environment on established system	4.28
(iii)	Practice CAD drawing with broad engineering, architecture and survey drawings	3.57
(iv)	Operate basic hardware peripherals including plotters	4.35
(v)	Basic competency computer literacy skills	3.66
(vi)	Interpret standard codes (i.e.AS1100)	3.66
(vii)	Develop skills in third party application software	3.18
(viii)	Carry out 3 dimensioning surface modelling	2.54
(ix)	Plan layout of drawing	4.47
(x)	Outline knowledge of basic operating system, hardware, etc.	3.53

At this level there was considerable consistency in responses on all but two skills. The skills with a range of responses were:

- (i) Draw using (a) keyboard on which the rating of 20% of respondents as 1 or 2 - indicating that this skill was seen as having no importance or low importance, and

- . (viii) Carry out 3 dimensioning surface drawing where the rating of 35% of respondents was 1 or 2, again indicating no or low importance on a significant number of responses.

Additional comments which relate to competencies specific to (Basic) Operator Skills are included below for the information of curriculum designers.

- . "Our first requirement for CAD operators is that they should be capable of good design."
- . "To understand CAD drafting, all operators should cover Engineering Drawing 1 and 2 or Structural Drawing 1 and 2".
- . "A lot of people who think they are Draftsmen also lack basic knowledge of Mathematics (Trig. etc)".
- . "Current levels of computer literacy limit the scope and extent of CAD to less than long-term desired levels."
- . "The CAD operator MUST be aware of the requirements of the CAM operator so that geometry coming from CAD does not cause any hang-ups in the CAM software."
- . "(The CAD operator is required to have high levels of skills, but not required to write programmes or routines."
- . "Operator skills need good overall 2D CAD drafting skills - 3D is not particularly useful in current construction work. 3D manual and artistic skills are far more useful."
- . "Items B(ii),(iii),(vi),(xii) and (xv) should be part of the original course."
- . Course Content - Level 1: "Heavy on operating system (how it works), How CAD is stored on the operating system. Basic set up of CAD on % system, Basic menu and configuration, Basic commands. Level 2: Advanced commands + system variables, etc. Polish up system operation."

TABLE 2.2 INDUSTRY PERCEPTIONS OF THE RELATIVE IMPORTANCE OF PRODUCTIVITY ENHANCEMENT SKILLS FOR CAD OPERATORS, INDICATED BY MEANS.

Productivity Enhancement Skills	Mean Responses
(i) All Basic Operator Skills (indicated in previous table)	3.49
(ii) Devise simple customisation	3.72
(iii) Develop prototype drawings	3.91
(iv) Develop simple menus	3.47
(v) Integrate Bill of Materials into CAD systems	3.01
(vi) Access and use library files	4.16
(vii) Use the computer as a manufacturing aid	1.94
(viii) Use the computer as design aid	4.37
(ix) Carry out 3 dimensional surface modelling	2.82
(x) Manage PC, networked and mainframe systems	2.83
(xi) Undertake 3 dimensional wire frame drafting	2.41
(xii) Carry out basic software maintenance	3.23
(xiii) Manage computer operating system	3.29
(xiv) Apply CAD to broad engineering, architectural and survey drawings	3.90
(xv) Transfer information to and from other systems	3.52

Although responses to the majority of skills at this level showed some consistency, there was less consistency overall in this section of the skills audit. On five skills, more than 25% of respondents rated the items as having little or no importance or relevance. Responses to these items are outlined below.

- (viii) Use the computer as a manufacturing aid -
On this skill 55% of responses were at the 1 and 2 rating, indicating that this skill was of little or no importance or relevance to the majority of respondents. This, however, is not surprising given that few respondents (11) were in the manufacturing field. The majority of the low ratings on this skill were given by engineers, drafters and architects.

- (xi) Undertake 3 dimensional wire frame drafting.
43% of respondents, the majority of whom were engineers and drafters, rated this skill at 1 and 2, indicating that it had little/no importance/relevance to them.
- (ix) Carry out 3 dimensional surface modelling, and
- (x) Manage PC, networked and mainframe systems.
Both of these skills were rated as having no or little importance/relevance to 31% of respondents.
- (v) Integrate Bill of Materials into CAD systems.
This skill was rated at the 1 and 2 levels on 27% of responses.

Additional comments which were specific to this level are included below:

"All drafting work done using digitizer with job standard menu tablet."

"Individual customisation can be carried out using cursor buttons or spare tablet grids."

"Experimenting or accessing operating system by the operator causes down time."

"Productivity Skills - not essential, but persons should have interest stimulated enough to want to go further once a year or so of experience is attained."

Suggestions for replacement of competencies:

Move "B(x) to C

Move to B - C(ii),
C(iii),
C(vi),
C(xii),
C(vii)."

"Level 3: 3D - meshing- variables; Ext LISP setup (Touch a bit on how LISP works); Basic Macros and how menu works on screen and tablet."

Four comments indicated that 3 dimensional modelling was only a "minor component" of their work.

TABLE 2.3 INDUSTRY PERCEPTIONS OF THE RELATIVE IMPORTANCE OF SYSTEMS MANAGER COMPETENCIES INDICATED BY MEAN

Systems Manager Competencies	Mean Responses
(i) All competencies in Table 4.2	3.61
(ii) Use two or more CAD systems	3.05
(iii) Manage data transfer between CAD systems	3.66
(iv) Develop data management policy	3.96
(v) Manage archived and file management systems	4.35
(vi) Use third party application software	3.47
(vii) Integrate design software into drawing software	3.56
(viii) Instruct and supervise CAD operators	3.96
(ix) Integrate third party software extent	3.47
(x) Develop standardisation procedures	4.30
(xi) Carry out computer programming	3.13
(xii) Develop and implement custom menus etc for particular office application	3.68
(xiii) Carry out advanced customisation including programming and system developments	3.18

Although there was considerably more consistency in responses at this level, three skills were rated as having little or no importance/relevance. These were:

- (ii) Use two or more CAD systems, on which 26% of responses were 1 and 2,
- (xi) Carry out computer programming, and
- (xiii) Carry out advanced customisation including programming and system developments, both of which were rated at 1 and 2 by 24% of respondents.

Further comments which related to System Manager Competencies were:

- "For a system such as ours, the area of system management/admin has loose ties with application.
- Knowledge is more software and operating system oriented than application oriented."

- . "Management competencies need to be there to get the best from staff and systems."
- . "For systems managers, there are unique requirements for each office."
- . There is a need to "include AutoLISP" in the programme.
- . "We do not wish to become involved in computer programming except to enhance purchased third party software. We are not involved in CAD/CAM at this stage, only basic understanding is required."
- . "I do not see high priority in knowledge of several CAD systems, except at management level."
- . "Level 4: System configuration - menu; CAD programming - Language i.e. AUTOLISP"
- . "Could have more courses on
 - 1) Autoshade or Rendering programmes,
 - 2) Autolisp or other courses,
 - 3) Special customising courses."

6 ADDITIONAL COMMENTS FROM RESPONDENTS

The large number of comments from respondents indicated a high level of interest in the survey and/or the purposes for which the information is to be used. Of the 69 completed questionnaires, thirty-nine (39) included comments. The majority of comments were constructive and centred on suggestions for proposed courses or the role of computers or programmes in the enterprise. Several of these thirty-nine respondents wrote comments which related to more than one section of the questionnaire or to related issues. These were collated into three main areas - Comments Regarding Personnel and Training, Comments relating to Specific Competencies and "Other" comments.

Most comments, that is, those which related to Personnel and Training or to Specific Competencies, were included in the findings in the relevant sections.

Of the remaining comments, two may need attention from curriculum designers. One such comment is that the "testing of students should be carried out throughout the course with students gaining a graded pass or fail". The other is that "Many of the skills you list become relatively unimportant when using an Apple Macintosh and programs such as "ARCHICAD", "TOPCAD", "MICROSTATION", etc."

The (14) other comments included twelve (12) explanations of the system in use and two (2) were general comments about the positive effects and benefits of using CAD.

7 CONCLUSIONS

The high response by industry to the survey, combined with the large number of constructive comments, indicate both a willingness and an interest on the part of the business community and relevant government departments to contribute towards initial curriculum planning for CAD courses.

One purpose of the survey was to gauge the needs of industry for the training of personnel to use CAD. The greatest need indicated by all fields of industry and government departments is for training design/drafting employees to be skilled CAD operators. Further needs were established for a considerable number of these employees to be skilled at CAD Productivity Enhancement and a smaller number of employees to be trained to be competent Systems Managers. Additional needs were established for Professional Development in two major areas. The first of these is for awareness programmes on CAD, particularly for Senior Managers. The other is for conversion courses from one hardware or software system to different systems.

While much training for employees to date occurred "In-house", a considerable number of respondents (51) indicated that training had been through TAFEs and Private Providers. It is reasonable to conclude, therefore, that there is considerable need for TAFEs and Private Providers to continue to provide courses in training designers and drafters in CAD operation, in CAD Productivity Enhancement and in Systems Management.

The identification of a large number (33) of different CAD systems in use justifies the concern of the Computer Aided Drafting and Design Curriculum Advisory Committee of the Bureau of Employment, Vocational Education and further Training that (CAD) programme-specific courses may be of limited use. Further, the responses to the survey showed that there were areas of commonality between CAD users in a variety of industries and government departments which could provide a basis for course development. These findings suggest that there is need for a general CAD course, that is, one which is not system-specific, which incorporates the common skills identified by industry in this survey.

Some commonly-held perceptions within industry of CAD and of CAD training provide a starting point for initial course planning. The survey showed that CAD is visualised as a "Drafter's Tool", that a design/drafter employee is first and foremost a drafter, and that CAD skills capitalize on that basic skill. Therefore, it is not surprising that almost all respondents believe that CAD training for beginners should be integrated with basic hand drawing skills and knowledge attainment.

The specific skills audit in the survey revealed many skills common to CAD users in a variety of industries. This commonality was particularly evident in the basic skills identified for CAD Operators. All skills identified, with the exception of one, were perceived generally by industry and government employees as having a high degree of relevance to their work and/or are very important. The exception was "Carry(ing) out 3 dimensioning surface modelling." While this skill was not identified as a current requirement, curriculum planners may need to evaluate this finding in terms of future developments in CAD software. The findings of the survey suggest that the skills identified at this level should be CORE skills developed during an initial CAD training course.

While further commonality was evident in the rating of skills for Productivity Enhancement for CAD operators, needs at this level appear to be more difficult to satisfy because of industry-specific requirements. Industry-specific needs reduced the level of importance attached to some skills. This was particularly noticeable with the skill to use the computer as a manufacturing aid, and, to a lesser extent,

to undertake 3 dimensional wire frame drafting. Had the sample contained more respondents in the manufacturing industries, this finding may have been different. However, of the fifteen skills identified at this level, ten were identified generally by respondents as having a high degree of relevance to their work and/or are very important. This suggests that, at this level of a CAD training course, a CORE component, comprising these ten skills, AND ELECTIVES (which could be industry-specific) may cater for the needs of industry in the development of Productivity Enhancement skills for CAD operators.

The identified Systems Manager Competencies, similarly, were generally perceived to be relevant and/or important to the majority of respondents. Industry responses to 10 of the 13 competencies indicated a high level of commonality in rating these as very important/very relevant competencies. The remaining three competencies, while perhaps not regarded as particularly relevant/important at the industry level, may well be desirable at the PERSONAL level for employees in facilitating movement from one firm or government department to another. This could be especially so with respect to the competency, "Use two or more CAD systems". The comment from one respondent that management skills may be required at this level is worthy of consideration in designing a course which aims to meet the needs of industry as effectively and efficiently as possible. It may be that electives at this level could be drawn from other courses which offer units/modules in management. Again, at this level of a CAD course, a combination of CORE AND ELECTIVE units (which may be drawn from other courses at a given institution) may provide for industry as well as personal needs.

In conclusion, this survey has established that industry needs to have personnel trained in the use of CAD and has provided valuable information on the extent of these needs. In addition, it has identified skills required of CAD users which are common across industries at three levels, as well as some skills which appear to be industry-specific. In accomplishing these tasks, it provides a sound basis for developing structured competency-based training programmes for TAFE Colleges and Private Providers.

APPENDIX A

Copy of the Questionnaire

DEPARTMENT OF EMPLOYMENT, VOCATIONAL EDUCATION,
TRAINING AND INDUSTRIAL RELATIONS

SURVEY OF TRAINING NEEDS IN COMPUTER AIDED DRAFTING AND DESIGN.

TAFE Queensland has been a major provider of CAD courses in Queensland for both industry, and individuals with training needs. Due to rapid development of this technology during the 1980's curriculum has been developed in response to emerging industry requirements. The result has been the development of numerous courses, many of which duplicated curriculum content.

The objective of this survey is to ascertain industry course requirements. The information gained will assist a Curriculum Advisory Committee review existing course offerings and determine future CAD TAFE course content.

SURVEY RESPONDENT PROFILE

Name of respondent:

Position/Title in organisation:

Company/Organisation:

Field of Business:

Approximate number of Employees in Company:

Number of Employees involved in Drafting, Design, Manufacturing
etc that may access CAD:

CAD system(s) presently installed:

PERSONNEL TRAINING REQUIREMENTS

Percentage of Drafting/Design employees to be (or require to be) skilled at CAD operation?

Percentage of Drafting/Design employees to be (or require to be) skilled at CAD productivity enhancement (customisation etc)?

Number of employees to be competent system managers?

Do you believe CAD training for beginners should be integrated with basic hand drawing skills and knowledge attainment (ie AS1100)?

YES/NO

Has training for your employees (to date) been in:

IN-HOUSE TRAINING
CAE/UNIVERSITY
TAFE
PRIVATE PROVIDER

Do you visualise CAD as a 'Drafter's Tool', ie a drafter first and foremost, with CAD skills?

YES/NO

Does your industry require awareness programs on CAD - particularly for Senior Managers?

YES/NO

Does your industry use computers for:

- | | | |
|-------|----------------------------------|--------|
| (i) | Administration | YES/NO |
| (ii) | Drafting/Design | YES/NO |
| (iii) | Manufacture | YES/NO |
| (iv) | Integrate (i), (ii), (iii) above | YES/NO |

Do personnel in your industry require conversion courses, that is from one hardware/software system to different systems?

YES/NO

SPECIFIC SKILL AUDIT

Please mark off one number as response. A high degree of importance/relevance is number 5, medium importance/relevance is number 3, and no importance/relevance is number 1 to you, or your organisation.

A <u>OPERATOR SKILLS (BASIC)</u>		LOW IMPORTANCE					- HIGH IMPORTANCE				
(i)	Draw using										
	a) keyboard	1	2	3	4	5					
	b) Digitiser/mouse	1	2	3	4	5					
(ii)	Operate CAD system in stand alone environment on established system	1	2	3	4	5					
(iii)	Practice CAD drawing with broad engineering, architecture and survey drawings	1	2	3	4	5					
(iv)	Operate basic hardware peripherals including plotters	1	2	3	4	5					
(v)	Basic competency computer literacy skills	1	2	3	4	5					
(vi)	Interpret standard codes (ie AS1100)	1	2	3	4	5					
(vii)	Develop skills in third party application software	1	2	3	4	5					
(viii)	Carry out 3 dimensioning surface modelling	1	2	3	4	5					
(ix)	Plan layout of drawing	1	2	3	4	5					
(x)	Outline knowledge of basic operating system, hardware etc	1	2	3	4	5					

Please mark off one number as response. A high degree of importance/relevance is number 5, medium importance/relevance is number 3, and no importance/relevance is number 1 to you, or your organisation.

B PRODUCTIVITY ENHANCEMENT SKILLS

		1	2	3	4	5
(i)	All of the above in A (operator skills basic). (Note the item number in A that are exception to this answer B (i), and comment in "further comments" space at end of survey)					
(ii)	Devise simple customisation	1	2	3	4	5
(iii)	Develop prototype drawings	1	2	3	4	5
(iv)	Develop simple menus	1	2	3	4	5
(v)	Integrate Bill of Materials into CAD systems	1	2	3	4	5
(vi)	Access and use library files	1	2	3	4	5
(vii)	Use the computer as a manufacturing aid	1	2	3	4	5
(viii)	Use the computer as design aid	1	2	3	4	5
(ix)	Carry out 3 dimensional surface modelling	1	2	3	4	5
(x)	Manage PC, networked and mainframe systems	1	2	3	4	5
(xi)	Undertake 3 dimensional wire frame drafting	1	2	3	4	5
(xii)	Carry out basic software maintenance	1	2	3	4	5
(xiii)	Manage computer operating system	1	2	3	4	5
(xiv)	Apply CAD to broad engineering, architectural and survey drawings	1	2	3	4	5
(xv)	Transfer information to and from other systems	1	2	3	4	5

Please mark off one number as response. A high degree of importance/relevance is number 5, medium importance/relevance is number 3, and no importance/relevance is number 1 to you, or your organisation.

C SYSTEMS MANAGER COMPETENCIES

(i)	All of the above in B (Note as per item B (i)) (Productivity enhancement skills.)	1	2	3	4	5
(ii)	Use two or more CAD systems	1	2	3	4	5
(iii)	Manage data transfer between CAD systems	1	2	3	4	5
(iv)	Develop data management policy	1	2	3	4	5
(v)	Manage archived and file management systems	1	2	3	4	5
(vi)	Use third party application software	1	2	3	4	5
(vii)	Integrate design software into drawing software	1	2	3	4	5
(viii)	Instruct and supervise CAD operators	1	2	3	4	5
(ix)	Integrate third party software extensions	1	2	3	4	5
(x)	Develop standardisation procedures	1	2	3	4	5
(xi)	Carry out computer programming	1	2	3	4	5
(xii)	Develop and implement custom menus etc for particular office application	1	2	3	4	5
(xiii)	Carry out advanced customisation including programming and system developments	1	2	3	4	5

FURTHER COMMENTS:

Thank you for your contribution to this survey.

APPENDIX B

TIMELINE FOR NATIONAL CURRICULUM
PROJECT IN COMPUTER AIDED DRAFTING.

PROJECT PLAN

Phase 1 - Planning and Research

- * Contact TAFE personnel to form National Task Group. (Replies by 30 March 1991.)
- * Establish National Industry Advisory Group with representatives from industry associations, unions, etc. (Replies by 3 May 1991.)
- * Prepare Report on Survey of Industry Needs in CAD, for distribution to National Groups.

Phase 2 - Team Development, Information Sharing and Curriculum Planning

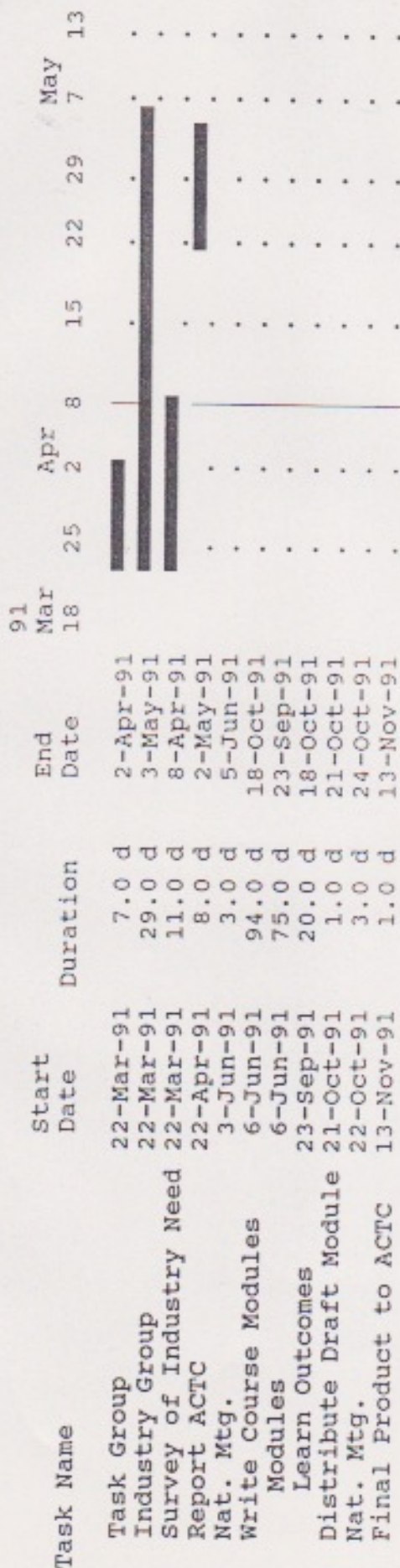
- * Progress report to Australian Committee on TAFE Curriculum. (1 May 1991.)
- * Arrange National Group meeting with team members to develop course structure based on industry survey and existing programs. (June 3-5 inclusive.)
- * Allocate the writing of course modules and timelines for their completion.
Learning outcomes by 19 October 1991.
Draft modules by 20 September 1991.

Phase 3 - Curriculum Writing and Evaluation

- * Distribute draft modules to National Group members.
- * National meeting with team members to discuss modules and final submission to Australian Committee on TAFE Curriculum. (October 14-16 inclusive.)
- * Final submission to ACTRAC by Friday 13 November.

Schedule Name : Computer Aided Drafting
 Responsible : Shayne Baker
 As-of Date : 8-Apr-91
 Schedule File : CAD

The project was approved at the September 1990 ACTC Meeting.
 The project objectives are :



----- Scale: 8 hours per character -----

Detail Task ===== Summary Task Baseline
 (Progress) ===== (Progress) Conflict
 (Slack) ===== (Slack) Resource delay
 Progress shows Percent Achieved on Actual Milestone

Schedule Name : Computer Aided Drafting
Responsible : Shayne Baker
As-of Date : 8-Apr-91

The project was approved at the September 1990 ACTC Meeting.
The project objectives are :

[illegible]

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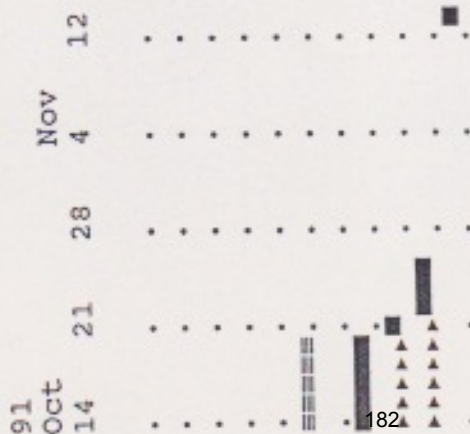
-----
Detail Task      Summary Task      ...  Baseline
(Progress)      (Progress)      ...  Conflict
(Slack)         (Slack)         ..  Resource delay
-----
Progress shows Percent Achieved on Actual
----- Scale: 8 hours per character -----

```

APPENDIX B

Schedule Name : Computer Aided Drafting
 Responsible : Shayne Baker
 As-of Date : 8-Apr-91
 Schedule File : CAD

The project was approved at the September 1990 ACTC Meeting.
 The project objectives are :



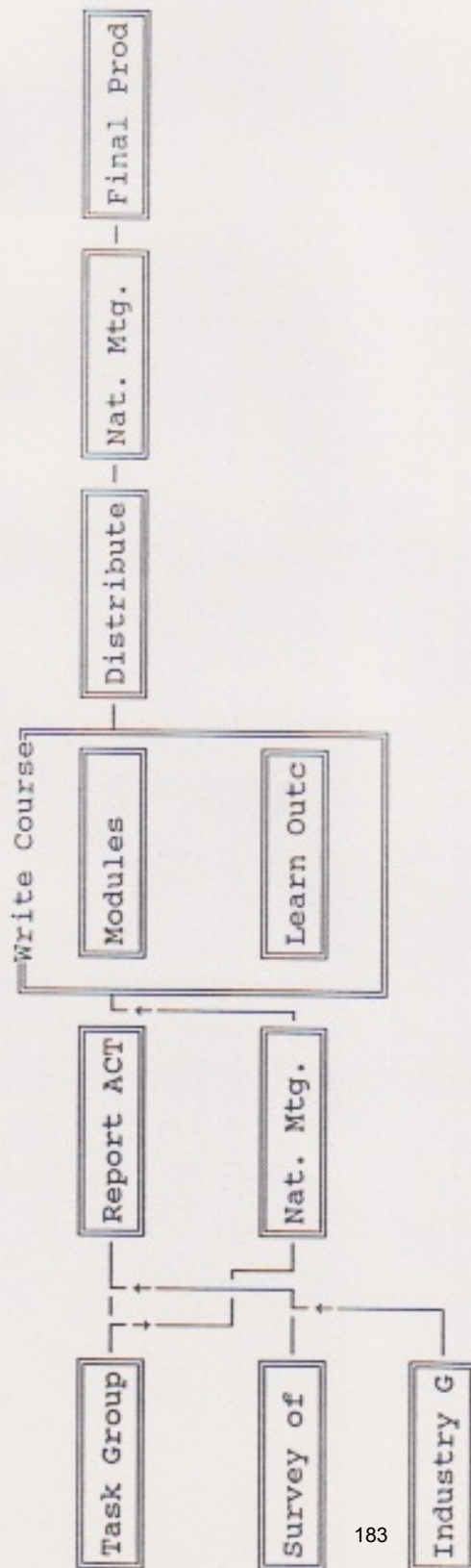
 Detail Task Summary Task Baseline
 (Progress) (Progress) Conflict
 (Slack) (Slack) Resource delay
 Milestone
 Progress shows Percent Achieved on Actual
 Scale: 8 hours per character -----

Responsible : Shayne Baker

As-of Date : 8-Apr-91

Schedule File : CAD

The project was approved at the September 1990 ACTC Meeting.
The project objectives are :



APPENDIX C

MEMBERS OF THE NATIONAL TAFE TASK GROUP

NATIONAL DELEGATES - CAD

Appendix C

Mr Richard Shaw
Teacher of Civil Engineering
Sydney Technical College
Mary Ann Street
ULTIMO NSW 2007
Phone: (02) 217 3649 Fax: (02) 217 4007

Mr Peter Tonkin
Central Metropolitan College of TAFE
Wembley Campus
133 Salvado Road
WEMBLEY WA 6014
Phone: (09) 387 9528 Fax: (09) 387 5973

Mr Alan McDonald
Lecturer, Department of Architecture & Building
Institute of TAFE
NT University
PO Box 40146
CASUARINA NT 0811
Phone: (089) 466 373 Fax: (089) 466 201

Mr Noel Hamey
School of Construction Studies
ACT Institute of TAFE
PO Box 826
CANBERRA ACT 2601
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Mr Keith Jarrett
Mt Gravatt College of TAFE
1030 Cavendish Road
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Ms Diane Jenner
Marleston College of TAFE
254 Richmond Road
MARLESTON SA 5033
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Mr Tony Roper
Alanvale Campus
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LAUNCESTON TAS 7250
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Mr George Oliver
Swinburne College of TAFE
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HAWTHORNE VIC 3122
Phone: (03) 819 8079 Fax: (03) 819 5454

APPENDIX D

INDUSTRY ADVISORY GROUP.

INDUSTRY REFERENCE GROUP - CAD

Appendix D

<u>NAME</u>	<u>INDUSTRY/ORGANISATION</u>	<u>1. PHONE</u> <u>2. FAX</u>
BAKER, SHAYNE	TOOWOOMBA TAFE COLLEGE	399555 392682
BAKER, GEOFF	NATIONAL METAL & ENGINEERING TRAINING PROJECT	8312305 8321095
BLOOMFIELD, ADRIAN	METAL TRADES INDUSTRY ASSOCIATION	8382305 8321095
BONDING, JIM	METALS & ENGINEERING WORKERS UNION	2362550 2362089
BRASSINGTON, MIKE	CONTAINERS PACKAGING	2754242
BULL, GEOFF	A.I.E.A.	2660214 2669069
CASTLE, GREG	DEPARTMENT OF EMPLOYMENT, EDUCATION AND TRAINING	2269504 2290760
CATER, ROGER	QLD PLASTICS ITC	8541228 2524769
CAUSER, DOREEN	VEATT	
LEVER, IAN	AUSTRALIAN CONSTRUCTION SERVICES	2337320 2337322
McALISTER, CHARLIE	COMALCO ALUMINIUM LIMITED	2261711 2261838
MORGAN, MICK	UNIVERSITY COLLEGE OF SOUTHERN QUEENSLAND	312517
MURCHIE, JEFF	INSTITUTE FOR DRAFTING AND DESIGN AUSTRALIA	2809854 2809232
RATCLIFFE, DAVID	UNIVERSITY OF QUEENSLAND FACULTY OF ENGINEERING	3653579 3654799
TAYLOR, COLIN	MIM HOLDINGS	8338773 8325029
WALLEY, MAURICE	ACL GASKET CO.	2680602 2686662
WONG, WALTER	QUEENSLAND UNIVERSITY OF TECHNOLOGY	8642410 8641510

APPENDIX E

REPORT ON TAFE NATIONAL
PROJECT TEAM MEETING
BRISBANE JUNE 1991.

NATIONAL CURRICULUM PROJECT
IN COMPUTER AIDED DRAFTING
TAFE PROJECT TEAM MEETING
BRISBANE 3/4/5 JUNE 1991

The aim of the project is to develop Competency Based Training (CBT) modules for the training of people at 3 levels - Basic CAD Operator, Advanced CAD Operator and Systems Manager.

PROJECT TEAM

The project team consists of TAFE representatives from each state and territory.

Prior to the meeting taking place, each representative had received a list of all TAFE personnel, a list of members of the National Industry Reference Group, a copy of the Project Plan, and example of the DACUM Method and a sample of the CAD 1 Module developed by NMEC.

The Project Team and their area of expertise is as follows:

TAS	Tony Roper (Engineering)	(003)	244 292
WA	Peter Tonkin (Mechanical)	(09)	387 9528
NT	Alan McDonald (Architecture)	(089)	466 373
SA	Di Jenner (Fashion)	(08)	352 4177
NSW	Richard Shaw (Civil)	(02)	217 3649
QLD	Keith Jarrett (Manufacturing)	(07)	343 5988
VIC	George Oliver (CAD Consultant)	(03)	819 8079
ACT	Noel Hamey (Construction)	(06)	252 0520
QLD	Shayne Baker		
	Project Manager	(076)	399 622

MEETING AGENDA

MEETING AGENDA

The purpose of the 3 day meeting was to:

- a Establish the commonality of courses in CAD offered by each authority
- b Define specific task competencies required at the Basic Operator, Advanced Operator and Systems Manager level
- c Design a suitable CBT course structure in modular format that will satisfy the requirements of industry as indicated in the survey results
- d Assign the writing of modules to TAFE personnel.

DAY 1

Proceeding began with a welcoming address by Mr Derek Merrin, Associate Director for Manufacturing Engineering and Extractive Industries, TAFE Curriculum Branch, in which he presented a brief overview of the project and the link that the CAD Project had with the NMEC and Advanced Certificate/Associate Diploma Projects.

Then each delegate presented a brief overview of the courses on offer in their respective state/territory.

Some issues to emerge from the presentations of concern were as follows:

- a Maximum student number for a CAD laboratory
- b Need for student knowledge of Operating Systems
- c Student knowledge of AS1100
- d CAD should be multi-disciplinary and applicable to any industry
- e Modules that are developed should be applicable to any CAD program.

Delegates were advised that many of these issues were addressed in the Industry Survey, as well as many others, and that similar items were being identified by each speaker.

As a result of these presentations, general agreement was reached that each state had encountered similar problems and shared many of the same concerns. All were in agreement that this meeting would certainly provide an opportunity to address many of the concerns that had been raised.

The second day of the meeting was dedicated to defining the specific task competencies at the three levels of Basic Operator, Advanced Operator and CAD System Operator. (The Project Team felt this was a more appropriate classification to Systems Manager.)

The initial session was spent allocating the identified areas of competence to a level on the NTB Industry Occupational Classification Framework.

The NTB levels, the identified general areas of competence (GAC) and the specific tasks for each GAC that were identified by the TAFE delegates, with reference to the 'Survey of Industry Needs' are listed in Appendix A.

DAY 3

The first item on the agenda for the third day was to conduct an analysis of the data assembled from the previous day, as a means of determining if there was any obvious oversights.

Derek Merrin explained with the aid of a flow diagram (Figure 1) the processes involved in the development of a National Curriculum Project to the group and asked each member to liaise with as many industry and fellow teachers of CAD as possible.

Feedback from each group should then be distributed to all Project Team members to enable the group to gain a clearer perspective of all issues associated with the project.

The Project Team was then made aware of the similarities that existed between the specific task for a Basic CAD Operator and the existing NMEC Modules. (Refer Appendix B)

It was agreed that an investigation should be carried out to determine if the NMEC modules were suitable for use in the CAD Project and for the people conducting the investigation to recommend alterations to the NMEC Modules in an effort to produce a module that is generic and applicable across all disciplines.

The next task for the Project Team was to determine the make-up of modules that would best suit the topics that remained for an Advanced CAD Operator and CAD System Co-ordinator.

It was decided that the remaining topics could be formed into three modules for the two areas, and module names, pre-requisites and purpose statements were then developed for each one. (Refer Appendix C)

FUTURE ACTION

The writing of Learning Outcomes for the modules was assigned to the following people:

CAD 2 - Tony Roper
CAD 3 - Richard Shaw
CAD 4 - George Oliver

Managing CAD Resources
Managing CAD Systems
Managing CAD Utilities

Noel Hamey

All submissions will be done on Wordperfect 5.1 and posted to Shayne Baker to arrive by Friday 12 July 1991.

Copies of all Learning Outcomes will be distributed to each TAFE Project Team member by Friday 19 July 1991.

IMPORTANT DATES	
31-07-91	Teleconference to discuss Learning Outcomes
02-09-91	Draft modules to Shayne Baker
09-09-91	Distribute draft modules to National delegates
23-24 September	Next meeting of National Project Team

CONCLUSION

The proposed modules have been developed as a generic CAD option that can be utilised as a separate offering or within specialist course areas, ie mechanical, civil, fashion and drafting.

The modules are also generic in terms of CAD software and computer hardware, which will allow an unlimited range of options for the providers of these modules.

The modules that have been developed to date have been developed as core competencies for the three levels. This will enable each area of specialisation to have the flexibility to determine their own needs and to have an input into the project.

SHAYNE BAKER
PROJECT MANAGER
21-06-91

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APPENDIX F

REPORT ON TAFE NATIONAL
PROJECT TEAM MEETING
ADELAIDE SEPTEMBER 1991.

NATIONAL CAD CURRICULUM PROJECT
TAFE TASK GROUP MEETING
HELD AT THE PATAWALONGA CONFERENCE CENTRE
SOUTH AUSTRALIA
SEPTEMBER 23 & 24 1991

Present	Shayne Baker (Project Manager)	(076)	399 622	(QLD)
	Noel Hamey (Construction)	(06)	252 0520	(ACT)
	Keith Jarrett (Manufacturing)	(07)	3435988	(QLD)
	Di Jenner (Fashion)	(08)	416 6464	(SA)
	Alan McDonald (Architecture)	(089)	466 373	(NT)
	George Oliver (CAD Consultant)	(03)	819 8079	(VIC)
	Tony Roper (Engineering)	(003)	244 292	(TAS)
	Richard Shaw (Civil)	(02)	217 3649	(NSW)
	Peter Tonkin (Mechanical)	(09)	387 9528	(WA)

Guest Doug Thompson

AIM The aim of this meeting was to analyse and refine the draft CBT modules which had been developed for training purposes in the areas of Basic CAD Operator, Advanced CAD Operator and Systems Manager.

Di Jenner introduced Mr Doug Thompson, Senior Lecturer, Constructive Engineering, Panorama College of TAFE (SA) to members. The invitation was extended to Mr Thompson to sit in on the meeting and offer guidance, if necessary, in the revised detailing of the modules.

Copies of the following documentation had been distributed to attendees:

- a "A Report of Learning Outcomes for Available Modules of the National CAD Curriculum" by Del Randall, Curriculum Specialist (relating to consistency and competency).
- b Draft report "Survey of Training Needs, CADD" March 1991
- c National TCF Module Descriptions
- d NBB04

Shayne emphasised that the CAD modules to be updated (listed below) were of a generic nature to suit any industry and that the program was progressing on a timely basis.

He also made reference to the promotion of the CAD program to industry and hoped members were trying to sell this to industry. Clarification was requested on this announcement, as several members considered that the programs were not yet sufficiently advanced for presentation to industry.

December 1 this year was the date given for the completion of objectives, in order that they might be introduced to industry groups.

- * Computers and their Application to (CAD)
- * Technical Drawing Interpretation
- * CAD I
- * CAD II
- * CAD III
- * CAD IV
- * Managing CAD Utilities
- * Managing CAD Resources
- * Managing CAD Systems

It was also mentioned that the National modules were being compared against competency based and that further funding would be required to establish industry standards.

A request was made for the latest flowchart of module writing, and a "Proposed Course Structure" diagram was distributed relating to the Engineering section in the Associate Diploma and Advanced Levels.

It was advised that in NSW, the ACTC is funding a "Teaching Learning Resource Kit", for NMEC modules which can be obtained for \$50.

Early 1992 was the date given for the commencement of the program and it was felt that feedback from industry may necessitate the re-writing of some sections. There was an on going responsibility to monitor and update records and additional funding would be required to carry out this work. It was stated that in South Australia, a major curriculum review was conducted every five years.

It was felt that recommendations from this meeting would generate thought in other colleges.

"Computers and their Application to CAD" was the title agreed upon as the new module name to replace "Computers and their Application".

It was pointed out at the meeting that the CAD package should set out minimum standards. Year 10 students did not have the educational levels of Year 12 students. Pre-requisites for Year 10 students entering initial CAD training should be:

- a Completion of Year 10
- b Good manual drafting skills
- c Testing

Applicants who have completed Year 12 would have done the three base

subjects and could be exempted from the above.

Discussion was held on the topic of module naming - CAD or CADD. The consensus of opinion was that CAD is a generic term covering both design and drafting.

Each module was analysed in detail and the amended documents will be distributed to members.

DAY 2

Detailed module analysis was continued.

Shayne to contact Cedric Woods, Head of Industry - Computing Electrical Electronics, TAFE 151 Royal Street, East Perth, Western Australia 6000, Telephone (09) 420 4103 regarding module managing CAD resources.

It was decided that modules were to be coded by the prefix NCC. Thus, the following numbers will apply to the existing modules:

NCC01	*	Computers and their Application to CAD
NCC02	*	Technical Drawing Interpretation
NCC03	*	CAD I
NCC04	*	CAD II
NCC05	*	CAD III
NCC06	*	CAD Resources
NCC07	*	Managing CAD Systems
NCC08	*	Managing CAD Utilities
NCC09	*	Managing CAD Resources

RECOMMENDATIONS

1 Exposure to more than one system

The meeting supported the suggestion that students applying for the Advanced CAD level, definitely should be familiar with a knowledge of 2 or more systems. This could be addressed by introducing a half module entitled "Awareness of CAD Systems".

Responsibility: Di Jenner
Doug Thompson

References was made to P.75 of CAD Systems National Common Core Module (in Engineering).

Entry suggestions were:

Trade
and/or
Year 10

Basic
Level

RECOMMENDATIONS CONTINUED

- 2 It was agreed by the group that another half module should be developed concerning the software on 3D CAD structures.

Responsibility: Shayne Baker

Discussion took place on the depth of information to be contained in this area and whether it should it be categorised as an "elective" or a half core module.

The elective could be an "awareness" of CAD - industry visits and videos demonstrating procedures for operation. Mr Thompson stated that, in his experience, simple "hands-on" exercises proved most beneficial for students prior to their entry into CAD 1.

The meeting was informed that the British have a video system which takes people through the whole range of CAD levels.

- 3 Members to investigate resource material inn their State colleges and list suggested resources. Information to apply to the unit on which the member is working.

Responsibility: All

- 4 That a major review be conducted every two years. This was agreed by all members.

- 5 It was requested that when revamping the modules, the matter of gender to be taken into consideration. The work "they" to replace he/she.

NEXT MEETING Date:
 Venue:

The meeting concluded at 3:00 pm

NB: Di Jenner will be absent from Marlestone College on accouchment leave until early 1992.

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Appendix 11

**TAFE NATIONAL COMPUTER AIDED DRAFTING
CURRICULUM PROJECT**

COMPUTER AIDED DRAFTING MODULES

**FINAL DRAFT
DECEMBER 1991**

**A Project of the Australian Committee
for Training Curriculum (ACTRAC)**

Managed by the National
Curriculum Projects Unit
TAFE ♦ TEQ

NATIONAL CAD CURRICULUM

The following modules are the product of a multi-disciplinary National TAFE Task Group, established in May 1991.

The main considerations of the Task Group in developing the curriculum were that:

The curriculum was written in generic terms, in relation to the discipline that can utilise them, the software program used and the hardware available.

The curriculum had to fulfil the skill competencies required at three identified levels Basic CAD Operator, Advanced CAD Operator and CAD System Co-ordinator.

The curriculum should be flexible enough to provide a range of entry and exit points.

The curriculum should be written in modular, competency-based format, similar to the format used in the National Metal and Engineering Curriculum.

The modules can be used as part of existing programs at certificate, advanced certificate and associate diploma levels or as a course of study in its own right, e.g., Certificate in Computer Aided Drafting.

NATIONAL CAD CURRICULUM

The curriculum consists of eleven modules suitable for each of the identified areas of:

*Basic CAD Operator
Advanced CAD Operator and
CAD System Co-ordinator (Refer Figure 1)*

NB *Some modules have pre-requisite requirements that have to be completed prior to entry into the module. PLEASE refer to the individual module descriptors.*

BASIC CAD OPERATOR

Three modules are designed for the Basic CAD Operator:

CAD001	<i>Computers and their Application</i>
CAD002	<i>Drawing Interpretation and</i>
CAD003	<i>Computer Aided Drafting 1</i>

These modules will provide students with basic skills in computing, drawing and interpretation of the relevant Australian standard and the operation of a CAD system.

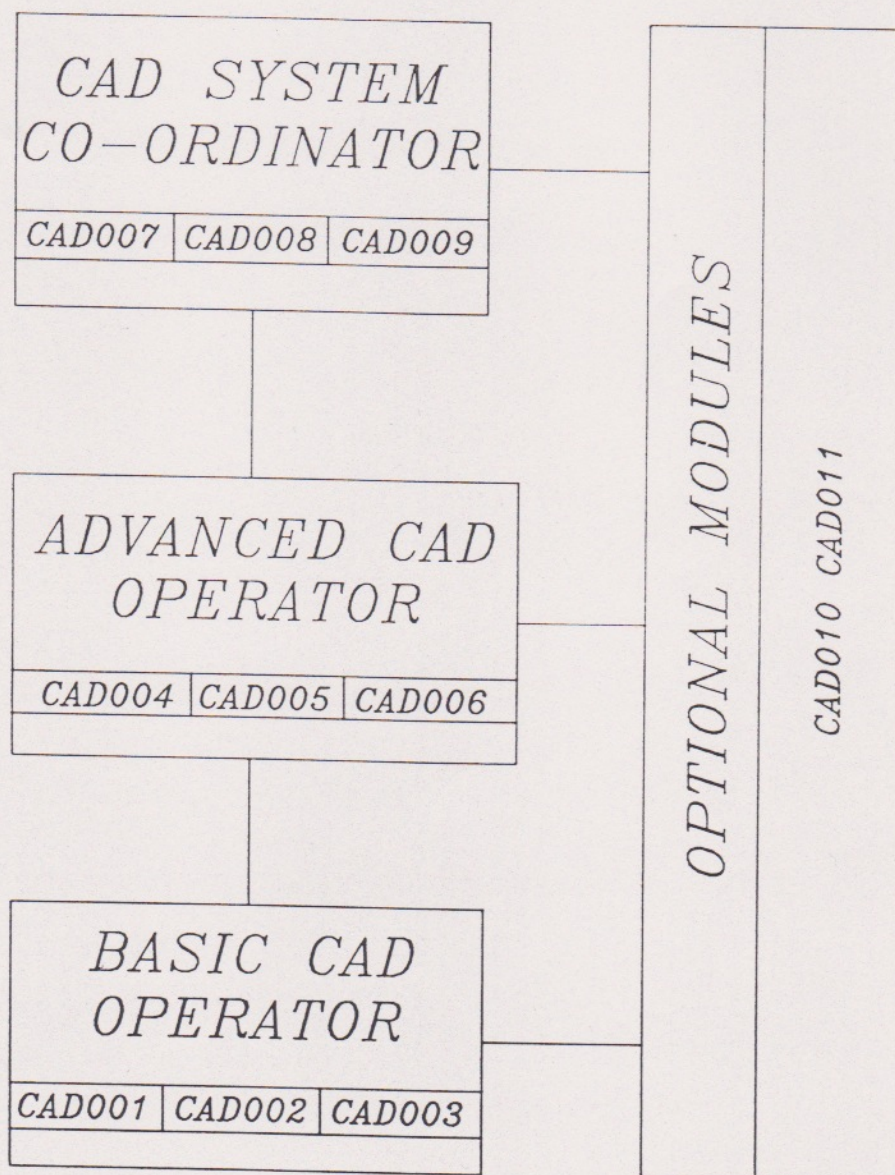
The modules have been designed in the competency based format and are suitable for people who have completed Year 10 (and above), as well as for people who possess trade qualifications seeking post-trade specialisation.

Tradespeople who have completed similar modules, such as NBB04 Computers in Engineering and NBB12 Engineering Drawing Interpretation and NM06 CAD1 would be eligible to apply for recognition of prior learning.

Completion of modules at the Basic CAD Operator level equates to Level 3 of the National Training Boards' Competency Framework and to a C10 level in the Metals Industry Award.

LEVELS OF COMPETENCY OF MODULES IN COMPUTER AIDED DRAFTING.

Figure 1.



COMPUTER AIDED DRAFTING ENTRY LEVELS

- * Year 10 - Direct entry to Basic CAD Operator
- * Year 10 with trade - Direct entry to Basic Operator.(Equivalent studies of similar modules may gain entry at a higher level)
- * Year 12 - Direct entry to Basic CAD Operator.(Equivalent studies of similar modules may gain entry at a higher level)

ADVANCED CAD OPERATOR

Three modules were designed for the Advanced CAD Operator:

CAD004	Computer Aided Drafting 2
CAD005	Computer Aided Drafting 3 and
CAD006	Computer Aided Drafting 4

These modules will provide students with advanced techniques for the production of CAD drawings, basic customisation techniques and basic 3D.

People who have completed the Basic CAD Operator level or who possess equivalent skills will gain entry to this level.

Successful completion of the competencies at the Advanced CAD Operator level equates to Level 4 of the National Training Board's Competency Framework and to C9, C8 and C7 levels in the Metals Industry Award.

CAD SYSTEM CO-ORDINATOR

Three modules were designed for the CAD System Co-ordinator:

CAD007	Managing CAD Systems
CAD008	Managing CAD Utilities and
CAD009	Managing CAD Resources

These modules will provide people with the skills required to establish, maintain and manage a CAD facility.

Entry to this level of training is conditional upon completion of (or recognition of) the competencies required of an Advanced CAD Operator or equivalent on-the-job experiences.

Learning Outcomes for the CAD System Co-ordinator are equivalent to Competency Level 5 on the National Training Board's Competency Framework and at C6 and C5 levels in the Metals Industry Award.

OPTIONAL MODULES

Two other skill areas were identified by the TAFE Task Group as being in need of consideration at the national level 3D drawing and knowledge of more than one CAD system.

The skills required for the production of 3D views rates very highly in a number of industries and there is a global trend by software designers and the suppliers of hardware to provide the technology necessary for the production of 3D views.

CAD010 - CAD 3D Drawing is an optional module and, as such, can be accessed at any one of the three levels to satisfy industry requirements (e.g. plastics, architectural and toolmaking).

CAD011 - Computer Aided Drafting Systems is another optional module that is available for training providers. It is designed to meet the needs of those who want to provide a general overview and awareness of concepts about CAD and its utilisation in industry.

MODE OF DELIVERY

These modules will be suitable for delivery on a full-time or part-time basis, either on-the-job or off-the-job. A range of delivery strategies can be implemented to enhance the learning experience of the students, such as, computer managed learning, self paced learning, industry visits and video tutorials.

NATIONAL CAD CURRICULUM

The following curriculum has been developed in cooperation with industry and TAFE personnel throughout Australia.

To ensure that there has not been any omissions I invite you to contact me regarding the modules or if you have any comments to make for future curriculum development in this field.

FROM:

Mr Shayne Baker
Project Manager
National CAD Curriculum
Toowoomba College of TAFE
PO Box 80
TOOWOOMBA Q 4350
FAX 076 39 2682

LEARNING OUTCOMES:

CONTENT:

PERFORMANCE CRITERIA - PERFORMANCE:

PERFORMANCE CRITERIA - ASSESSMENT:

BASIC CAD OPERATOR

NATIONAL CAD CURRICULUM

LEARNING SPECIFICATION

MODULE CAD001-COMPUTERS AND THEIR APPLICATIONS TO CAD

PURPOSE

This module aims to provide the student with the opportunity to develop basic skills and knowledge in the use of computers

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours

The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Nil

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Describe common applications of computers in industry*

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NATIONAL CAD CURRICULUM

LEARNING SPECIFICATION

- 2 *Recognise different types of computers and explain the terms commonly used with them*
- 3 *Identify the purpose and type of operating systems*
- 4 *Effectively communicate with a computer using basic keyboard skills or other input devices and use of output devices*
- 5 *Demonstrate the use of a commercial CAD package used in industry*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

The module should cover

- 1 *Use of computers in industry*

Application areas

- a *Communication*
- b *Machine control*
- c *Production control*
- d *Office support*
- e *Record-keeping eg stores*
- f *Professional support eg CAD/CAM, CADD, CNC*

- 2 *Introduction to Computers*

- a *Types of computers*
- b *Hardware names*
- c *Meaning of words and terms commonly associated with computers*

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

- 3 *Introduction to Operating Systems*
- a *Common operating systems (eg DOS and UNIX) applications*
 - b *The identification of the purpose and types of disks and files commonly used*
 - c *The selection and manipulation of disks and files using a commonly used operating system*
- 4 *Use of Computers and Peripheral Devices*
- a *Purpose of input, output and ancillary storage devices*
 - b *Use of keyboard, mouse/puck, tablet, CPU, monitor, printers and plotters.*
 - c *Input and run a simple program eg word processing, spreadsheet and database*
 - d *Enter, retrieve and save data*
- 5 *Application packages used in industry*
- eg*
- a *CAD programs*
 - b *Use of other appropriate application packages*

ON THE JOB TRAINING

For consolidation the material in this module should be linked with and complimented by relevant On the Job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

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LEARNING SPECIFICATION

LEARNING OUTCOME 1

ASSESSMENT

Case Study

PERFORMANCE

Describe the type of computer system and operations used in the workplace

LEARNING OUTCOME 2

ASSESSMENT

Short answer questions

PERFORMANCE

- a Recognise and name the items of hardware*
- b Explain the meaning of words and terms commonly used with computers*

LEARNING OUTCOME 3

ASSESSMENT

Short answer question
Practical exercises

PERFORMANCE

Perform a set of tasks involving the manipulation of disks and files using a commonly used operating system

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LEARNING SPECIFICATION

LEARNING OUTCOME 4

ASSESSMENT

Short answer questions
Practical exercises

PERFORMANCE

- a Recognise, name and explain the purpose of input, output and auxiliary storage devices*
- b Log on, run a program, enter data and retrieve and print data*
- c Use an appropriate application package*

LEARNING OUTCOME 5

ASSESSMENT

Practical exercises

PERFORMANCE

Use an appropriate CAD package to produce a simple CAD drawing

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

MODULE CAD002 - TECHNICAL DRAWING INTERPRETATION

PURPOSE

This module aims to provide an overview of technical drawing and develops the skills and knowledge associated with the reading and interpretation of technical drawings, the application of geometric construction and the detailing of components

NOMINAL DURATION

One Module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Nil

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Identify methods of drafting and reproducing drawings*
- 2 *Construct geometric shapes as appropriate to the relevant industry*
- 3 *Interpret the practical implications of information specified on technical drawings as appropriate to the relevant industry*
- 4 *Produce detail sketches/drawings from written and/or drawn specifications or from specifications gained from measuring simple components as appropriate to the relevant industry*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *An overview of technical drawing covering*
 - a *types and functions of technical drawings*
 - b *drafting methods for preparing original drawings*
 - c *drawing reproduction methods*
 - d *drawing standards and conventions*
- 2 *Geometric construction methods and applications including*
 - a *construction of angles, circles and arcs, polygons and tangent arcs, circles and lines as appropriate to the relevant industry*

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LEARNING SPECIFICATION

- 3 *Understanding and use of the relevant technical drawing standards and conventions as specified by an appropriate standard such as AS1100 with a strong emphasis on interpretation of the specified conventions and symbols including*
- a *Sheet types, title block information, material/parts lists revision tables, grid referencing, scales*
 - b *Line types*
 - c *Orthogonal projection of views if appropriate*
 - d *Detail and assembly drawings as applicable to the relevant industry*
 - e *Three dimensional view drawings axonometric and oblique as appropriate to the relevant industry*
 - f *Sectioning standards and conventions as appropriate to the relevant industry*
 - g *Names, graphical representation, abbreviations, symbols, dimensioning and text specifications for all appropriate component features dimensioning*
 - h *Basic tolerance as appropriate to the relevant industry*
 - i *Datums, auxiliary dimensions, not-to-scale dimensions*
 - j *Elementary symbols for surface textures and fixings*
 - k *Common abbreviations*

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LEARNING SPECIFICATION

- 4 *Sketching/drawing skills used to produce drawings in orthogonal and three dimensional projections*

ON THE JOB TRAINING

For consolidation the material in the module should be linked with and complemented by relevant on-the-job skill practice or other equivalent practice

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Short answer tests and practical exercises

PERFORMANCE

- a List types of technical drawing and explain the function of each*
- b Describe methods of drafting and reproducing drawings*
- c Identify relevant standards applying to drawing eg AS110*

LEARNING OUTCOME 2

ASSESSMENT

Short answer tests and practical exercise/s

PERFORMANCE

Using geometric construction methods accurately draft planar shapes which will include angular and rectilinear lines, centre lines, circles, arcs, polygons, tangent arcs, circles and lines as used in the relevant industry

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LEARNING SPECIFICATION

LEARNING OUTCOME 3**ASSESSMENT**

Short answer tests and practical exercise/s

PERFORMANCE

Interpret specifications on simple overall detail and assembly drawings as appropriate to the relevant industry

LEARNING OUTCOME 4**ASSESSMENT**

Practical exercise/s

PERFORMANCE

- a Using appropriate instruments measure simple components to appropriate tolerances*
- b Draw/sketch a component showing the dimensions. The drawing is to be in general accordance with the appropriate standard ie AS 1100*

ASSESSMENT NOTE

Practical exercises must be appropriate to the relevant industry

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LEARNING SPECIFICATION

MODULE CAD003 - COMPUTER AIDED DRAFTING 1

PURPOSE

This module aims to introduce to the student the basic concepts of Computer Aided Drafting (CAD). The knowledge and skills attained will enable the student to produce simple CAD drawings and provide the basis for further studies in CAD

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Computers and their Application to CAD (CAD001)
Technical Drawing Interpretation (CAD002)

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Operate the CAD software for drawing initialisation*
- 2 *Construct basic shapes using CAD*
- 3 *Produce a basic drawing to the relevant standards*
- 4 *Save and transfer a drawing file to a specified drive or directory*
- 5 *Modify existing CAD drawings*
- 6 *Plot a CAD drawing*
- 7 *Perform the appropriate exit and shut-down procedures*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *For a given CAD software package*
 - a *Identify the screen display areas*
 - b *Set basic parameters*
 - c *Select appropriate command input method*
- 2 *Geometric construction methods and applications including construction of angles, circles and arcs, polygons and tangents as appropriate to the relevant industry*

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LEARNING SPECIFICATION

- 3 *Produce simple drawings on a CAD system to relevant standards and conventions*
- 4 *Save/update drawing detail to a nominated drive or directory*
- 5 *Access and edit existing CAD drawings*
- 6 *Plot CAD drawings to pre-set parameters*
- 7 *Procedures for existing the CAD system and shutting down*

ON THE JOB TRAINING

For consolidation the material in this module should be linked with and complemented by relevant On the Job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Short answer test and/or practical exercise

PERFORMANCE

- a *List the procedure for entering the CAD system*
- b *List the screen display areas and state their function*
- c *Set basic parameters for a given exercise*
- d *State the reasons for using pre-defined parameters*

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LEARNING SPECIFICATION

LEARNING OUTCOME 2**ASSESSMENT***Practical exercise***PERFORMANCE**

- a Demonstrate the ability to draw POINTS, LINES, ARCS, CIRCLES, POLYGONS, ELLIPSES, TANGENTS and TEXT given coordinates, dimensions and sizes*
- b For given exercises, demonstrate the ability to edit or modify drawing elements*

LEARNING OUTCOME 3**ASSESSMENT***Practical exercise/s***PERFORMANCE***For given drawing exercises, produce CAD drawings which should include the following*

- a Lines*
- b Arcs*
- c Circles*
- d Hatching or filling area if appropriate*
- e Text*
- f Dimensions*
- g Tangents*
- * Drawn to a relevant standard such as AS1100*

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LEARNING SPECIFICATION

LEARNING OUTCOME 4**ASSESSMENT**

Practical exercise/s

PERFORMANCE

Save/Update drawing detail to nominated drive or directory

LEARNING OUTCOME 5**ASSESSMENT**

Practical Exercises

PERFORMANCE

- a Recall an existing CAD drawing file from a nominated drive or directory*
- b Modify an existing CAD drawing file from a nominated drive or directory*
- c Modify an existing CAD drawing by adding, deleting or changing drawing elements within that drawing*

LEARNING OUTCOME 6**ASSESSMENT**

Practical exercise

PERFORMANCE

Given a specific set of plotting conditions plot a drawing to the appropriate standard

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LEARNING SPECIFICATION

LEARNING OUTCOME 7

ASSESSMENT

Practical Exercise

PERFORMANCE

- a Demonstrate correct exit procedures from the CAD system*
- b Demonstrate the correct shut-down procedures for all hardware in use*

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ADVANCED CAD OPERATOR

NATIONAL CAD CURRICULUM

LEARNING SPECIFICATION

MODULE CAD004 - COMPUTER AIDED DRAFTING 2

PURPOSE

This module aims to provide the student with the knowledge and skills to use Computer Aided Drafting (CAD) for the production of prototype and complex drawings at an advanced level

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours

The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

COMPUTER AIDED DRAFTING 1 (CAD003)

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Create library files of elements suitable for standardisation*
- 2 *Apply efficient procedures for expeditious production of CAD drawings*
- 3 *Configure a digitising tablet*
- 4 *Create and use layers with a range of suitable names, colours, linetypes*
- 5 *Set system variables*
- 6 *Draw standard drawing sheets*
- 7 *Produce complex CAD drawings to industry specific standards*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *Procedures for creating symbols for library files*
- 2 *Knowledge of program specific commands for speed enhancement*
- 3 *Procedures for configuring the digitising tablet*

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LEARNING SPECIFICATION

- 4 *Methodology for creating layers with suitable name, colour and linetype*
- 5 *Methodology for setting the following drawing variables*
 - a *Limits*
 - b *Grid*
 - c *Snap*
 - d *Dimensions*
 - e *Text*
 - f *Units*
- 6 *Production of standard ISO series drawing sheets*
- 7 *Practical exercises necessary for the production of advanced drawings*

ON THE JOB TRAINING

For the consolidation the material in this module should be linked with and complemented by relevant On the Job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Practical exercise

PERFORMANCE

- a *Select symbols suitable for standardisation*
- b *Create a library file of various symbols*

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LEARNING SPECIFICATION**

LEARNING OUTCOME 2**ASSESSMENT**

Short answer questions

Practical exercise

PERFORMANCE

- a Set processing parameters such that elements are included or excluded from regeneration*
- b Manipulate drawing elements using advanced editing techniques*

LEARNING OUTCOME 3**ASSESSMENT**

Practical exercise

PERFORMANCE

Configure and align menu areas on a digitising tablet

LEARNING OUTCOME 4**ASSESSMENT**

Practical exercise

PERFORMANCE

- a Create layers, linetypes and colours to given parameters*
- b Switch layers on and off as required for tasks such as plotting a drawing*

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LEARNING SPECIFICATION**

LEARNING OUTCOME 5**ASSESSMENT**

Practical exercise

PERFORMANCE

- a Set drawing variables such as limits, grid snap and variables associated with dimensioning and text*
- b Selection of the appropriate unit of measurement eg decimal, fractional, scientific*

LEARNING OUTCOME 6**ASSESSMENT**

Practical exercises

PERFORMANCE

Draw standard drawing sheets eg A3 sheet

LEARNING OUTCOME 7**ASSESSMENT**

Practical exercise

PERFORMANCE

Produce complex and detailed CAD drawings to relevant industry standard

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LEARNING SPECIFICATION**

SUGGESTED LEARNING RESOURCES

ENGINEERING DRAWING	3rd Edition	by A W Boundy
INSIDE AUTOCAD	New Riders Publishing	by D Parker & H Rice
MASTERING AUTOCAD	Release II Sybex Publishing	by George Omura
INTRODUCTION TO COMPUTER AIDED DRAFTING	Prentice Hall	by David L Goetsch
COMPUTER AIDED DRAWING USING THE TECTRONIX GRAPHIC SYSTEM	Prentice Hall	By Norman Neundorf
ADVANCED TECHNIQUES IN AUTOCAD	Sybex Publishing	by Robert M Thomas

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

MODULE CAD005 - COMPUTER AIDED DRAFTING 3

PURPOSE

This module aims to provide the student with the knowledge and skills to use Computer Aided Drafting (CAD) to customise software

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Computer Aided Drafting 2(CAD004)

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student should be able to

- 1 *Outline the principles of menu creation*
- 2 *Customise menus*
- 3 *Customise user defined function keys*
- 4 *Create icons*
- 5 *Customise user define line types and hatch patterns*
- 6 *Configure CAD software as related to peripheral devices*
- 7 *Identify and select appropriate CAD consumables*

OUTLINE OF CONTENT

This module contains

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

- 1 *Principles of menu structure*
- 2 3 4 5 *Customisation techniques for user defined applications on function keys, linetypes, patterns, screen, tablet, button, pull down and icon menus*
- 6 *Procedures for configuring software as related to CAD peripherals*

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LEARNING SPECIFICATION

7 *Information on CAD consumables*

ON THE JOB TRAINING

For consolidation the material in this module should be linked with and complemented by relevant On the Job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Short answer test

PERFORMANCE

List the steps in the procedure for menu creation eg screen, button, tablet and icons

LEARNING OUTCOME 2

ASSESSMENT

Practical exercise

PERFORMANCE

Demonstrate the ability to customise menus for

- a Screen*
- b Tablet*
- c Button*

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LEARNING SPECIFICATION

LEARNING OUTCOME 3**ASSESSMENT***Practical exercise***PERFORMANCE***Demonstrate the ability to customise user defined function keys***LEARNING OUTCOME 4****ASSESSMENT***Practical exercise***PERFORMANCE***Demonstrate the ability to produce icons***LEARNING OUTCOME 5****ASSESSMENT***Practical exercise***PERFORMANCE***Demonstrate the ability to produce user defined*

- a line types*
- b hatch patterns*

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LEARNING SPECIFICATION

LEARNING OUTCOME 6

ASSESSMENT

Practical exercise

PERFORMANCE

Operate CAD drafting peripheral devices ie digitizers, plotters and printers

LEARNING OUTCOME 7

ASSESSMENT

Theory assignment

PERFORMANCE

Describe the key factors in selecting consummables suitable for a CAD environment

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LEARNING SPECIFICATION

MODULE CAD006 - COMPUTER AIDED DRAFTING 4

PURPOSE

This module aims to provide the student with the knowledge, practical skills and motivation to use a CAD program for design drafting purposes. Students will also use drawing files for manufacturing purposes and to produce basic 3D views

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Computer Aided Drafting 2(CAD004)

RECOGNITION OF PRIOR LEARNING

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LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Create, extract and manipulate data from the drawing file, for design drafting purposes*
- 2 *Use commercially available 3rd party programs, with the CAD program for adding or editing data*
- 3 *Produce and manipulate complex entities*
- 4 *Use a CAD program to produce and plot or print basic 3D views*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *Design applications using the CAD program ie areas, perimeters, volumes, angles, starting, ending and other controlling points of drawing entities*
- 2 *An introduction to the use of other commercial programs, additional to the CAD program, for editing, design drafting and file manipulation and control purposes eg spreadsheet, Bill of Material, database, programming languages*
- 3 *Production and manipulation of complex lines and arcs, splines, special single-entity type multiple lines, and unique profiles of the involute, archimedean type*

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LEARNING SPECIFICATION

4 *An introduction to basic 3D views*

ON THE JOB TRAINING

For consolidation the material in this module should be linked with and complimented by relevant On the Job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Practical exercise/s

PERFORMANCE

Demonstrate the ability to utilise the in-built design and data handling aspects of the CAD program for design and drafting purposes

LEARNING OUTCOME 2

ASSESSMENT

Practical exercise/s

PERFORMANCE

Demonstrate the ability to load and use commercially available 3rd party programs in conjunction with the drawing process to add or edit data

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LEARNING SPECIFICATION

MODULE CAD006 - COMPUTER AIDED DRAFTING 4

PURPOSE

This module aims to provide the student with the knowledge, practical skills and motivation to use a CAD program for design drafting purposes. Students will also use drawing files for manufacturing purposes and to produce basic 3D views

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Computer Aided Drafting 2(CAD004)

RECOGNITION OF PRIOR LEARNING

A person who considers that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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LEARNING SPECIFICATION**

SUGGESTED LEARNING RESOURCES

MAXIMISING AUTOCAD	Vol 2	by J Smith & R Gesner
AUTOCAD DATABASE BOOK	Ventenna Press	by F Jones & L Martin
AUTOCAD PRODUCTIVITY BOOK		by Ted Schaefer
AUTOCAD 3D BOOK		by George Head
1001 AUTOCAD TIPS & TRICKS		by George Head

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CAD SYSTEM CO-ORDINATOR

NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

MODULE CAD007 - MANAGING CAD SYSTEMS

PURPOSE

This module aims to provide the student with the knowledge and skills to co-ordinate CAD operations with respect to system management

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

CAD005 CAD006

RECOGNITION OF PRIOR LEARNING

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LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Perform configurations of CAD and related third party software to a computer system*
- 2 *Set system variables and establish layer standards*
- 3 *Analyse and discuss the application and integration of Local Area Networks (LAN)*
- 4 *Coordinate the operation of CAD systems, peripheral equipment and consumables*
- 5 *Plan CAD system management procedures and requirements for optimising productivity*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IIN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *Information relating to configuring computer systems*
 - a *Types of CPU and operating systems*

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LEARNING SPECIFICATION

- b* *Peripheral input and output devices*
- c* *Importing and exporting drawing files*
- d* *Communication protocol standards applicable to hardware and software for installing with a CAD package*
- e* *Backup storage devices*
- f* *Knowledge of cabling and communication for specific hardware*
- 2 *Procedures for the management of CAD system variables and layers*
- 3 *Local Area Networks*
 - a* *Understanding concepts and functions of local area networks*
 - b* *Hardware and software requirements for local area networks*
 - c* *Configuring of CAD for a network environment*
- 4 *Operation, coordination and control of*
 - a* *Storage devices, plotting mediums and plotter and consumables*
- 5 *Techniques for efficient CAD system management, incorporating*
 - a* *File management procedures for drawing projects*
 - b* *Maintenance and recording of CAD drawing files*
 - c* *Adoption of drawing standards*
 - d* *Procedures for achieving and backing up*
 - e* *Establishment of internal security system*

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LEARNING SPECIFICATION

- d Planning the layout and software storage requirements for a network*
- e Configuring the network to user operating applications including input and output devices*
- f File management and security operations on a network environment*

ON THE JOB TRAINING

For consolidation, the material in this module should be linked with and complemented by relevant on the job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Student Project

PERFORMANCE

Perform configurations on

- a The computer operating system*
- b CAD software*
- c Third party related software*
- d Peripheral devices*

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

LEARNING OUTCOME 2**ASSESSMENT**

Practical exercise

PERFORMANCE

Set CAD system variables to perform specific industrial application routines

LEARNING OUTCOME 3**ASSESSMENT**

Written test or student project

PERFORMANCE

Given a specific set of conditions and requirements analyse and produce a plan showing specifications for a CAD system operating on a local area network to an acceptable industry standard

LEARNING OUTCOME 4**ASSESSMENT**

Written test or student project

PERFORMANCE

Given a specific set of conditions and requirements analyse and produce a plan for the operation, coordination and control of CAD systems, peripheral equipment and consumables

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NATIONAL CAD CURRICULUM

LEARNING SPECIFICATION

LEARNING OUTCOME 5

ASSESSMENT

Student project

PERFORMANCE

Present a plan of a CAD project which would include

- a Monitoring procedures*
- b Application of required standards*
- c Administration of drawing files*
- d Backup and archiving routines*
- e CAD resource requirements*
- f Project time frame*

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**NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION**

SUGGESTED LEARNING RESOURCES

AUTOCAD 3D DESIGN & PRESENTATION		by Michelle Ouesquet
MAXIMISING AUTOCAD	Vol 2	by J Smith & R Gesner
AUTOCAD DATABASE BOOK		by F Jones & L Martin
AUTOCAD PRODUCTIVITY BOOK		by Ted Schaefer
AUTOCAD 3D BOOK		by George Head
1001 AUTOCAD TIPS & TRICKS		by George Head

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NATIONAL CAD CURRICULUM

LEARNING SPECIFICATION

MODULE CAD008 - MANAGING CAD UTILITIES

PURPOSE

This module aims to provide the student with the knowledge and skills to co-ordinate CAD operations and to apply extended customisation techniques to CAD operations

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours

The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

CAD005 CAD006

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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NATIONAL CAD CURRICULUM LEARNING SPECIFICATION

LEARNING OUTCOMES

On completion of this module the student will be able to

- 1 *Use text editing software to perform file creation and editing for managing software*
- 2 *Design, create and implement complex screen and tablet menus*
- 3 *Develop complex macro files for customising CAD software*
- 4 *Develop complex icon files for customising CAD software*
- 5 *Use interchange formats for file transfer*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *The use of text editing software for commands, menus, keystrokes and special keys to perform software functions read and modification of help and assistance screens*
- 2 *Procedures for the creation of complex CAD menus*
 - a *Screen and digitising tablet menus*
 - b *Compile files to operate screen and tablet menus*

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

- 3 4 *Techniques for the creation and customisation of complex macro and icon files*
- 5 *File transfer procedures*

ON THE JOB TRAINING

For consolidation, the material in this module should be linked with and complemented by relevant on the job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be

LEARNING OUTCOME 1

ASSESSMENT

Practical exercise

PERFORMANCE

Demonstrate the ability to edit and organise files for the management of software

LEARNING OUTCOME 2

ASSESSMENT

Project assignment

PERFORMANCE

Create and operate files for the customisation of complex screen and tablet menus

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

LEARNING OUTCOME 3

ASSESSMENT

Practical exercise/s

PERFORMANCE

Use text editing software for the development of complex macros

LEARNING OUTCOME 4

ASSESSMENT

Practical exercise/s

PERFORMANCE

Use text editing and CAD software for the development of a group of complex icons

LEARNING OUTCOME 5

ASSESSMENT

Practical exercise

PERFORMANCE

Generate and transfer alternate file formats

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**NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION**

SUGGESTING LEARNING RESOURCES

AUTOCAD 3D DESIGN & PRESENTATION	by Michelle Ouesquet
AUTOCAD DATABASE BOOK	by F Jones & L Martin
AUTOCAD PRODUCTIVITY BOOK	by Ted Schaefer
AUTOCAD 3D BOOK	by George Head
1001 AUTOCAD TIPS & TRICKS	by George Head
COMPUTER AIDED SYSTEMS ENGINEERING	by Howard Eisner

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

MODULE CAD009 - MANAGING CAD RESOURCES

PURPOSE

This modul aims to provide the student with the knowledge and skills to co-ordinate CAD operations with respect to CAD resources

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on such factors as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITE

CAD006

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

LEARNING OUTCOMES

On completion of this module the student will be able to

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NATIONAL CAD CURRICULUM

LEARNING SPECIFICATION

- 1 *Explain the financial aspects of CAD operation*
- 2 *Discuss human resource management and its relationship to the effectiveness of an organisation*
- 3 *Discuss concepts relating to motivation, morale, production and training*
- 4 *Identify decision making styles and techniques*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IIN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *The processes involved in*
 - a *Costing of estimates*
 - b *Budget planning*
 - c *Labour cost of time and subsequent cost for a given project*
 - d *Material cost for a given project*
 - e *Selection of appropriate staff/skills*
 - f *Quality control methods*
- 2 *An Introduction to Human Resource Management*
 - a *Definition and aims of human resource management*

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LEARNING SPECIFICATION

- b Changing social and legal environments and its influence on human resource management (eg occupational health and safety)*
 - c The influence of changing technology on the nature and quantity of work*
- 3 *Principles and concepts of Human Resource Development*
 - a Motivational theories*
 - b Human relations approach to productivity improvements*
 - c Work design*
 - d Industrial relations*
- 4 *Decision making activities associated with*
 - a Process of setting objectives organising resources, achieving predetermined goals and evaluating results*
 - b Describe the organising process as the fragmentation and subsequent Co-ordination of work processes*
 - c Define controlling and its relationship with other management functions*
 - d The resolution of problems*
 - e Approaches and aids to decision making*
 - f Generating solutions using methods such as*
 - * Brainstorming*
 - * Lateral thinking*
 - * Synectics (creative thinking)*
 - * Group participant techniques*
 - g Evaluating of decisions*

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

ON THE JOB TRAINING

For consolidation, the material in this part module should be linked with and complemented by relevant on-the-job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be the satisfactory completion of 2 classroom projects

LEARNING OUTCOME 1

ASSESSMENT

Student assignment

PERFORMANCE

Determine the costing, resources and appropriate time stages of a CAD project, such that the result will represent a detailed estimate

LEARNING OUTCOME 2

ASSESSMENT

Written test

PERFORMANCE

Explain the inter relationships between human resource management and the effect of the external environment of organisations

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

LEARNING OUTCOME 3

ASSESSMENT

Student assignment

PERFORMANCE

Using classnotes and references, formulate the most appropriate decision making process and the techniques to adopt for producing an acceptable outcome to a given situation

LEARNING OUTCOME 4

ASSESSMENT

Formal test questions

Class exercises

PERFORMANCE

- 1 *Explain the role of mangement and discuss why organisations and management are needed*
- 2 *Discuss the process of organising, planning, controlling and motivation, and explain it's importance for organisations*
- 3 *Examine the current approaches and the changes occurring in management thought*

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

MODULE CAD010 - 3 DIMENSIONAL DRAWING

PURPOSE

This module aims to provide the students with the skills necessary to use a CAD program to produce and plot basic 3D view drawings

NOMINAL DURATION

One module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on factors such as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITE

Computers and their Application to CAD (CAD001)

RECOGNITION OF PRIOR LEARNING

Students who consider that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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NATIONAL CAD CURRICULUM**LEARNING SPECIFICATION****LEARNING OUTCOMES**

On the completion of this part module the student will be able to

- 1 *Set up a 3D environment to allow multi-viewing*
- 2 *Move through 3D space to draw on various planes*
- 3 *Create 3D geometric shapes*
- 4 *Create 3D complex views*
- 5 *Use editing functions to modify 3D geometrical shapes*
- 6 *Display solid 3D views*
- 7 *Save selected views on file for plotting*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *Setting up of environment on screen to allow multiple viewing of 3D views*
 - a *Top view*
 - b *Front and side views*
 - c *3D View*
- 2 *Movement through 3D space to*
 - a *Draw on any of the views*
 - b *Relocate co-ordinate system as necessary*

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LEARNING SPECIFICATION

- 3 *Creation of 3D geometric shapes as required to be utilised in construction of 3D view*
- 4 *Creation of 3D complex view by*
 - a *Manipulation of drawing planes*
 - b *Location of 3D geometric shapes*
- 5 *Use of editing functions to facilitate modification of 3D geometric shapes in creation of 3D complex view*
- 6 *Display of 3D view*
 - * *Wire Line*
 - * *Solid Face*
 - a *Isometric*
 - b *Perspective*
 - c *Orthographic*
- 7 *Saving of selected views in assembly drawing file for plotting*

ON THE JOB TRAINING

For consolidation, the material in this part module should be linked with and complemented by relevant on-the-job skill practice or other equivalent experience

PERFORMANCE CRITERIA

The criteria for each learning outcome should be the satisfactory completion of 2 classroom projects

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

LEARNING OUTCOME 1**ASSESSMENT**

Satisfactory completion of classroom projects

PERFORMANCE

Demonstrate the ability to set up a 3D environment on the screen to allow multiple viewing

- a Top view*
- b Front and side view*
- c 3D view*

LEARNING OUTCOME 2**ASSESSMENT**

Satisfactory completion of classroom projects

PERFORMANCE

Demonstrate the ability to

- 1 Draw on any plane of the 3D view*
- 2 Relocate co-ordinates as required*

LEARNING OUTCOME 3**ASSESSMENT**

Satisfactory completion of classroom projects

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

PERFORMANCE

Demonstrate the ability to create on the screen 3D complex views by

- 1 *Manipulation of drawing planes*
- 2 *Insertion of 3D geometric shapes*

LEARNING OUTCOME 5

ASSESSMENT

Satisfactory completion of classroom projects

PERFORMANCE

Demonstrate the ability to use editing junctions to modify 3D geometric shapes in creating 3D complex view

LEARNING OUTCOME 6

ASSESSMENT

Satisfactory completion of classroom projects

PERFORMANCE

Demonstrate the ability to produce

- 1 *Wire line display*
- 2 *Solid face display in the following projections*

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LEARNING SPECIFICATION

- a Isometric*
- b Perspective*
- c Orthographic*

LEARNING OUTCOME 7

ASSESSMENT

Satisfactory completion of classroom projects

PERFORMANCE

Demonstrate the ability to save a variety of views in assembly drawing file for plotting

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NATIONAL CAD CURRICULUM
LEARNING SPECIFICATION

MODULE CAD011 - COMPUTER AIDED DRAFTING SYSTEMS

PURPOSE

This module is aimed at providing a general overview and awareness of concepts about Computer Aided Drafting and Design Systems and their utilization in industry

NOMINAL DURATION

Half module

A module is designed on the assumption that most of the students will achieve the competences specified in 35 to 40 hours
The length of time taken to complete a module will vary depending on factors such as teaching method used, knowledge and skills at entry and individual students ability

PRE-REQUISITES

Computers and their Application to CAD (CAD001)
Technical Drawing Interpretation (CAD002)

RECOGNITION OF PRIOR LEARNING

A person who considers that they already possess the competencies developed through this module will be granted credit on substantiation of these competencies

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NATIONAL CAD CURRICULUM**LEARNING SPECIFICATION****LEARNING OUTCOMES**

On completion of this module the student will be able to

- 1 *Identify the current classification of Computer Aided Design and Drafting Systems and emerging trends*
- 2 *Develop an understanding of CAD terminology*
- 3 *Identify the advantages and disadvantages of using CAD*
- 4 *Describe the various disciplines and areas of application of CAD in both Design and Drafting*

OUTLINE OF CONTENT

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES

This module contains

- 1 *An overview of the different types of CAD systems*
 - * *3D Wire Frame and Surface Modellers*
 - * *2D systems*
 - * *Solids Modellers*
 - * *Parametric Modellers*

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Appendix 12

MAPPING Information for CAD units

Note: Because of coding requirements, new units based on currently endorsed units have a new code. Codes used in this consultation draft may not be the final codes used by MSA for versions submitted for endorsement.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
MEM30001A Use computer aided drafting systems to produce basic engineering drawings	MEM30031A Operate CAD system to produce basic drawing elements	This unit covers introductory CAD operations skills. The emphasis of both these units is on CAD operations required for producing detail drawings. The new unit is based on MEM30001A but is not equivalent. It forms the starting base for CAD drafting skills and does not require completion of a detail drawing to AS1100. Completion of a basic detail drawing to AS1100 is covered in new unit <i>MEM30032A Produce basic engineering drawings</i> . Proposal: <i>MEM30001A Use computer aided drafting systems to produce basic engineering drawings</i> is deleted in place of new units.
MEM30002A Produce basic engineering graphics MEM30003A Produce detailed engineering drawings	MEM30032A Produce basic engineering drawings	This unit covers introductory 2D drawing skills. The new unit is based on a merger of MEM3002A and MEM30003A and can be considered equivalent if CAD prerequisites are completed. Proposal: <i>MEM30002A Produce basic engineering graphics</i> and <i>MEM30003A Produce detailed engineering drawings</i> are deleted in place of the new unit.
MEM30004A Use CAD to create and display 3D models	MEM30033A Use CAD to create and display 3D models	This unit covers introductory 3D modelling skills. The new unit is based on MEM30004A and is equivalent, some rewriting has been conducted to conform with latest unit format requirements. The prerequisite unit MEM16006A Organise and communicate information has not been included as a prerequisite in the new draft, rather content is added into the first element.
MEM09002B Interpret	MEM09002B Interpret technical	Proposal: <i>MEM30004A Use CAD to create and display 3D models</i> is deleted in place of the new unit. No changes made to this unit.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
technical drawing	drawing	
MEM09003B Prepare basic engineering drawing	MEM09204A Produce basic engineering detail drawings	This unit is aimed at general detail drafting across all sectors and forms the base level detail drafting skill upon which further drafting specialisation or advanced drafting skills are developed. Drawings are to AS1100. Unit is not equivalent, some rewriting has been conducted to conform with latest unit format requirements. Proposal: <i>MEM09003B Prepare basic engineering drawing</i> is deleted in place of the new unit.
MEM09004B Perform electrical/electronic detail drafting	MEM09205A Produce electrical schematic drawings	This unit targets specialist electrical detail drafting skills. Unit more comprehensively details electrical/electronic schematic drawing skills than MEM09004B. It is not equivalent. Proposal: <i>MEM09004B Perform electrical/electronic detail drafting</i> is deleted in place of the new unit.
MEM09005B Perform basic engineering detail drafting		Detail drafting now covered in MEM9204A Produce basic engineering detail drawings and specialist drafting units. . Proposal: <i>MEM09005B Perform basic engineering detail drafting</i> is deleted in place of the new units.
MEM09006B Perform advanced engineering detail drafting	MEM09214A Perform advanced engineering detail drafting	New unit covers advanced detail drafting skills. It is based on, extends and replaces MEM09006A. It is not equivalent Proposal: <i>MEM09006B Perform advanced engineering detail drafting</i> is deleted in place of the new unit.
MEM09007B Perform advanced mechanical detail drafting	MEM09214A Perform advanced engineering detail drafting	New unit covers advanced detail drafting skills. It is based on, extends and replaces MEM09007A. It is not equivalent Proposal: <i>MEM09007B Perform advanced mechanical detail drafting</i> is deleted in place of the new unit.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
MEM09008B Perform advanced structural detail drafting		Structural steel detail drafting is now covered in recently endorsed specialist structural steel detailing units. A new unit has also been developed to cover detail drafting of steel to non-steel components (MEM09212A). Advanced drafting skills are covered in MEM09214A Perform advanced engineering detail drafting. Proposal: Delete <i>MEM09008B Perform advanced structural detail drafting</i> .
MEM09009C Create 2D drawings using computer aided design system		Content covered in CAD operations unit & new general and specialised drafting units. Proposal: Delete <i>MEM09009C Create 2D drawings using computer aided design system</i>
MEM09010C Create 3D models using computer aided design system	MEM09210A Create 3D models using computer aided design system	The new unit extends and updates 3D modelling skills. Not equivalent Proposal: <i>MEM09010C Create 3D models using computer aided design system</i> is deleted in place of the new unit.
MEM09021B Interpret and produce curved 3-dimensional shapes	MEM09216A Produce curved 3-dimensional shapes and patterns	The new unit extends and updates coverage. Not equivalent Proposal: MEM09021B Interpret and produce curved 3-dimensional is deleted in place of the new unit.
	MEM30031A Operate CAD system to produce basic drawing elements	New unit covering introductory CAD operations skills. Content includes computer coverage of MEM16008A Interact with computing technology
	MEM30032A Produce basic engineering drawings	New unit covering introductory 2D drawing skills.
	MEM30033A Use CAD to create and display 3D models Prerequisites: MEM30031A Operate CAD system to produce basic drawing elements	New unit covering introductory 3D modelling skills.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
	MEM09201A Work effectively in a drafting workplace	New unit covering skills related to working in drafting and understanding the role of drafting across industries and in various applications.
	MEM09202A Produce freehand sketches Prerequisite: • MEM09002B Interpret technical drawing	New unit covering freehand sketching skills and standard drawing conventions and techniques.
	MEM09203A Measure and sketch site information Prerequisites: • MEM09202A Produce freehand sketches • MEM09002B Interpret technical drawing • MEM12023A Perform engineering measurement	New unit covering skills to take onsite measurements, perform calculations and sketch site information to inform drafting work.
	MEM09204A Produce basic engineering detail drawings Prerequisite: • MEM09002B Interpret technical drawing	New unit covering preparation of detail 2D drawings to AS1100.
	MEM09205A Produce electrical schematic drawings Prerequisites: • MEM09002B Interpret technical drawing	New unit covering specialised detail drafting skills for electrical schematic.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
	<ul style="list-style-type: none"> MEM09204A Produce basic engineering detail drawings MEM30025A Analyse a simple electrical system circuit 	
	MEM09206A Produce drawings for mechanical services Prerequisites: <ul style="list-style-type: none"> MEM09204A Produce basic engineering detail drawings MEM09002B Interpret technical drawing 	New unit covering specialised detail drafting skills for mechanical services.
	MEM09207A Produce drawings for reticulated services Prerequisites: <ul style="list-style-type: none"> MEM09205A Produce basic engineering detail drawings MEM09002B Interpret technical drawing 	New unit covering specialised detail drafting skills for reticulated services. Unit also covers selecting pipe and duct fabrication methods
	MEM09208A Detail fasteners and locking devices in mechanical drawings Prerequisites: <ul style="list-style-type: none"> MEM09205A Produce basic engineering detail drawings MEM09002B Interpret technical drawing 	New unit covering specialised detail drafting skills.
	MEM09209A Detail bearings, seals	New unit covering specialised detail drafting skills.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
	<p>and other componentry in mechanical drawings</p> <p>Prerequisites:</p> <ul style="list-style-type: none"> MEM09204A Produce basic engineering detail drawings MEM09002B Interpret technical drawing 	
	<p>MEM09210A Create 3D solid models using computer aided design system</p> <p>Prerequisites:</p> <ul style="list-style-type: none"> MEM09002B Interpret technical drawing MEM30031A Operate CAD system to produce basic drawing elements 	New unit based on and replaces MEM09010C Create 3D models using computer aided design system. Not equivalent.
	<p>MEM09211A Produce drawings or models for industrial piping</p> <p>Prerequisites:</p> <ul style="list-style-type: none"> MEM09204A Produce basic engineering detail drawings MEM09002B Interpret technical drawing 	New unit covering specialised detail drafting skills.
	<p>MEM09212A Produce detailed drawings of steel to non-steel connections</p> <p>Prerequisites:</p>	New unit covering specialised detail drafting skills.

CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
	<ul style="list-style-type: none"> MEM09204A Produce basic engineering detail drawings MEM09002B Interpret technical drawing 	
	<p>MEM09213A Produce schematic drawings for hydraulic and pneumatic fluid power systems</p> <p>Prerequisites:</p> <ul style="list-style-type: none"> MEM09204A Produce basic engineering detail drawings MEM09002B Interpret technical drawing engineering detail drawings 	New unit covering specialised detail drafting skills.
	<p>MEM09214A Perform advanced engineering detail drafting</p> <p>Prerequisites:</p> <ul style="list-style-type: none"> MEM09002B Interpret technical drawing MEM09204A Produce basic engineering detail drawings MEM30012A Apply mathematical techniques in a manufacturing engineering or related environment MEM30031A Operate CAD system to produce basic drawing elements 	<p>New unit covers advanced detail drafting skills including tolerancing and dimensioning. Also includes extended skills in the use of CAD systems.</p> <p>Based on, extends and replaces MEM09006A. Not equivalent.</p>
	MEM09215A Manage detail drafting	New unit covers management of drafting projects.

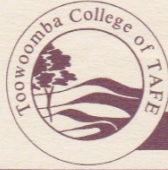
CURRENT UNIT	PROPOSED NEW UNIT	COMMENTS
	<p>projects</p> <p>Prerequisites:</p> <ul style="list-style-type: none"> MEM09002B Interpret technical drawing MEM09204A Produce basic engineering detail drawings MEM30012A Apply mathematical techniques in a manufacturing engineering or related environment MEM09214A Perform advanced engineering detail drafting MEM30031A Operate CAD system to produce basic drawing elements 	
MEM09021B Interpret and produce curved 3-dimensional shapes	MEM09216A Interpret and produce curved 3-dimensional shapes	The new unit reformats the current unit and is equivalent.
	MEM09219A Prepare drawings for fabricated sheet metal products	New unit covering specialist drawing focus on sheet metal products.
	MEM09220A Apply surface modelling techniques to 3D drawings	New unit covering 3D CAD skills.
	MEM09221A Create 3D model assemblies using computer aided design system	New unit covering 3D CAD skills.
	MEM09222A Interpret and maintain or restore original drawings	New unit covering skills to interpret, use and restore historical, paper based drawings.

Packaging outline – New units are packaged into the following qualifications.

Certificate III in Manufacturing Technology & Certificate III in Engineering - Technical	Certificate IV in Manufacturing Technology & Certificate IV in Engineering Drafting	Diploma in Manufacturing Technology & Diploma in Engineering - Technical
MEM30031A Operate CAD system to produce basic drawing elements	MEM30031A Operate CAD system to produce basic drawing elements	MEM30031A Operate CAD system to produce basic drawing elements
MEM30032A Produce basic engineering drawings	MEM30032A Produce basic engineering drawings	MEM30032A Produce basic engineering drawings
MEM30033A Use CAD to create and display 3D models	MEM30033A Use CAD to create and display 3D models	MEM30033A Use CAD to create and display 3D models
MEM09201A Work effectively in the engineering drafting industry	MEM09201A Work effectively in a drafting workplace	MEM09201A Work effectively in a drafting workplace
MEM09202A Produce freehand sketches	MEM09202A Produce freehand sketches	MEM09202A Produce freehand sketches
MEM09203A Measure and sketch site information	MEM09203A Measure and sketch site information	MEM09203A Measure and sketch site information
MEM09205A Produce electrical schematic drawings	MEM09204A Produce basic engineering detail drawings	MEM09204A Produce basic engineering detail drawings
MEM09208A Detail fasteners and locking devices in mechanical drawings	MEM09205A Produce electrical schematic drawings	MEM09205A Produce electrical schematic drawings
MEM09209A Detail bearings, seals and other componentry in mechanical drawings	MEM09206A Produce drawings for mechanical services	MEM09206A Produce drawings for mechanical services
MEM09213A Produce schematic drawings for hydraulic and pneumatic fluid power systems	MEM09207A Produce drawings for reticulated services	MEM09207A Produce drawings for reticulated services
	MEM09208A Detail fasteners and locking devices in mechanical drawings	MEM09208A Detail fasteners and locking devices in mechanical drawings
	MEM09209A Detail bearings, seals and other componentry in mechanical drawings	MEM09209A Detail bearings, seals and other componentry in mechanical drawings
	MEM09210A Create 3D models using computer aided design system	MEM09210A Create 3D models using computer aided design system
	MEM09211A Produce drawings or models for industrial piping	MEM09211A Produce drawings or models for industrial piping
	MEM09212A Produce detailed drawings of steel to non-steel connections	MEM09212A Produce detailed drawings of steel to non-steel connections
	MEM09213A Produce schematic drawings for hydraulic and pneumatic fluid power systems	MEM09213A Produce schematic drawings for hydraulic and pneumatic fluid power systems
	MEM09216A Produce curved 3-dimensional shapes and patterns	MEM09216A Produce curved 3-dimensional shapes and patterns
	MEM09219A Prepare drawings for fabricated sheet metal	MEM09214A Perform advanced engineering detail drafting

Certificate III in Manufacturing Technology & Certificate III in Engineering - Technical	Certificate IV in Manufacturing Technology & Certificate IV in Engineering Drafting	Diploma in Manufacturing Technology & Diploma in Engineering - Technical
	products	
	MEM09220A Apply surface modelling techniques to 3D drawings	MEM09215A Manage detail drafting projects
	MEM09221A Create 3D model assemblies using computer aided design system	MEM09219A Prepare drawings for fabricated sheet metal products
		MEM09220A Apply surface modelling techniques to 3D drawings
		MEM09221A Create 3D model assemblies using computer aided design system
		MEM09222A Interpret and maintain or restore original drawings

Appendix 13



your future

Your Ref.
Our Ref.
Tel. (076) 399555
Fax No. (076) 392682

P.O. Box 80
TOOWOOMBA, QLD. 4350

8 November 1993

Mr. Shayne Baker,
Technology Campus,
Toowoomba College of TAFE,
TOOWOOMBA, 4350

Dear Shayne,

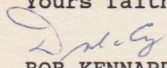
It gives me a great deal of pleasure to confirm that your application for the Quality Assurance Manager position has been successful.

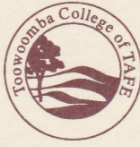
I will discuss with your Associate Director as to the most appropriate time for you to be released from your current duties to undertake the College Quality Assurance.

Naturally due to the importance of Quality Assurance for the College I am anxious that the release should occur as soon as possible.

Congratulations, I am sure you will enjoy the challenge that awaits you.

Yours faithfully,


BOB KENNARD
ACTING DIRECTOR



COLLEGE COUNCIL TOOWOOMBA COLLEGE OF TAFE

Tel: 076 399 504/547
Fax No: 076 392 682
Our Ref:

100 Bridge Street
Toowoomba Q 4350

March 14, 1994

Mr Shane Baker
Quality Assurance Manager,
Toowoomba College of TAFE
Bridge Street
Toowoomba. 4350

Dear Shane,

It was resolved at the last meeting of the College Council to extend an invitation to yourself to attend the next meeting of Council which will take place on April 8 at 4.00p.m. - venue being either the Restaurant or the Conference Room.

We hope you will be able to provide an update for the Council on the quality assurance program for the College.

Yours sincerely,

Ian Sharpe per JS.

Ian Sharpe,
CHAIRMAN.

Please address all correspondence to

The Chairman
College Council
Toowoomba College of TAFE
P O Box 80
Toowoomba Q 4350

Appendix 14

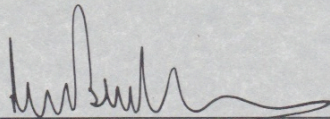
CERTIFICATE

This is to Certify that

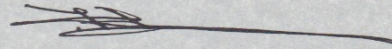
SHAYNE BAKER

*has successfully completed the
Bywater plc
training course in*

Quality Assurance Auditing



*L. A. Blackham
Managing Director*



*G. Illsley
Course Director*

July 1994

Date

9920

Certificate Number



B y w a t e r

Course No : A2161

*This course is registered by the Governing Board of the National Registration Scheme
for Assessors of Quality Systems and meets the training requirements for registration of individual
Assessors under that Scheme.*

Appendix 15

AOQ

A.C.N. 007 166 725

Membership Certificate

presented to

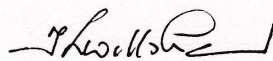
Shayne D Baker

in recognition of membership with the

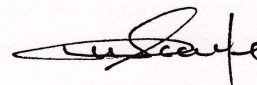
Australian Organisation for Quality

21 January 1992

Membership No
4608



National President



Executive Director

MEMBERSHIP CERTIFICATE

Executive

*This is to
certify that*

Shayne D Baker

*was accepted as
an Executive Member on*

31 May 1994

Membership Number

4608



***Australian
Organisation
for Quality***

National Chairman

National Executive Officer



Australian Organisation for Quality Queensland Inc

recognises that Shayne Baker has made a significant contribution to
quality management and business improvement within Queensland

In recognition of this
The AOQ-Qld Council has deemed that

Shayne Baker

be awarded the status of

Fellow

And is entitled to use the postnominals

FAOQ

Mario S Pennisi
Chairman

6th of November, 2008

Appendix 16

QUALITY IN TEACHING & LEARNING

AT TOOWOOMBA COLLEGE OF TAFE

A DISCUSSION PAPER

MACRO EFFECTS

Addressing the question of implementing quality in the teaching learning process at our college is a massive undertaking and one that will require as much discussion and consultation that can be focussed on the topic.

There are a number of issues that arise as a result of curriculum decisions external to our college and in some ways are beyond our direct control. Issues such as Competency Based Training (CBT), Competency Based Assessment (CBA), Recognition of Prior Learning (RPL), Exemptions, Flexible Delivery and Linear Programming are issues that have impacted on the TAFE system through the National Training Agenda.

Obviously most of these issues are being addressed strategically through the efforts of the CBT Committee and I'm sure that this group will continue to be a vital link in the implementation strategy within the college.

The concern that I would like to raise with you, is in relation to the quality of service that we as a service organisation provide to our clients/customers.

Quality as defined in the broadest manner, is the "totality of features and characteristics of a product or service that bear on its ability to satisfied stated or implied needs". (ISO Quality Vocabulary)

In other words, "What are we as teachers doing in these areas to ensure that if we are asked by students/clients how they may access the services we have on offer are they likely to be provided with consistent, reliable, user friendly information that meets or exceeds the needs of our clients/customers ?"

For example, if each and every teaching staff member (teachers, tutors, casual teachers and EA's) in the college was approached by a student/client inquiring as to the difference between RPL and exemptions - Would they receive an accurate, consistent factual response, and would they be given enough information to submit a request for either of these activities ?

Has each teaching team examined the implications of flexible delivery and how they may be able to develop a more flexible approach in the teaching/learning environment , in terms of resource requirements, subjects/modules suitable for flexible delivery and response from commerce and industry ?

Could every member of the teaching staff at Toowoomba College of TAFE explain to a student the process and information required as part of a submission when seeking RPL ?

If the answer to these questions is an emphatic YES, than we are well & truly on the right track in dealing with the macro issues associated with the delivery of national curriculum and we should only concern ourselves with the micro issues of implementation.

A negative response would indicate that there may be deficiencies in some teaching teams within the college, resulting in an obvious limitation in our ability to respond to what are essential features in the delivery of national curriculum at our institution.

Ultimately resulting in a poor reputation for the college and TAFE Queensland in general. A situation that none of us would be pleased about and one which could have a drastic impact on our long term viability.

MICRO ISSUES

The manner in which teaching & learning takes place at the teacher/student interface is also of great concern in the development of quality processes in the vocational education and training arena in which we operate.

These are what I refer to as the **micro** issues in the provision of vocational education and training.

Some of the topics that have been raised through other forums within the college continue to remain very much an individual team response and **not** a unified consistent response that will minimise the risks that may be associated with a particular action.

For example, there are a number of activities that a student/client should be reasonably confident of encountering at the beginning, middle and end of a learning experience.

THE BEGINNING - Enrolment in a particular course or module should be supported by specific information that comprises the teachers' name, room number, student rules, course /module information in regards to entry requirements, material costs, equipment needed, class times and dates and the opportunities for RPL and/or exemptions.

On entering a class for the first time the student/client **should** be provided with the relevant module descriptor, study/work program, assessment methods and key dates, advised of the location and availability of relevant resources for successful program outcomes. ie. library, counselling and learning support personnel.

THE MIDDLE - During the learning process extensive communication and feedback is essential to our clients/customers to ensure that they are provided with every opportunity to develop the necessary competencies for successful course/module completion. Feedback should be of a constructive nature and follow any learning activity that provides measurable outcomes. eg. a weld has the correct amount of penetration, length and width.

Any learning difficulties that have been identified should be followed up through consultation with other teaching colleagues to determine whether the difficulty is

module specific or of a more general nature. (this will assist in determining an appropriate action)

Depending on the nature of the learning difficulty, the teacher may take further action with the individual student to provide a strategy to assist him/her to better manage their own individual learning experience or may refer the student to other student support services. (professionally it would be highly recommended that all such activities are recorded)

It is probably worth mentioning at this stage that there are very clear rules (Rules for Students - TAFE Queensland 19 July 1994) for student assessment in terms of meeting deadlines, etc. and it should be emphasised that any departure from these rules is done at the teachers' own risk and is **not** recommended. Additional information on assessment is available from TAFE Queensland - Queensland Assessment Principles. (Attachment A)

If a teacher does choose to vary an existing assessment schedule that has been provided to students than any such variation should be documented and all parties ie. teacher and student) should sign the variation to indicate understanding and agreement to the variation. (this may sound like a contract to you, and you are absolutely correct)

THE END - On completion of a module or course, feedback should be sought from a range of sources including;

- students;
- fellow teachers;
- industry representatives; and
- employers.

This feedback will provide valuable information to the teaching teams for future planning, in terms of teacher programming, course development, resource acquisition and allocation, which will ultimately assist the teams in improving the quality of each particular learning program at Toowoomba College of TAFE.

CONCLUSION

There is already a framework in place for colleges to refer to when addressing the issues that have been raised in this paper.

VETEC is responsible for the registration of providers of vocational education and training institutions to deliver the many programs that are on offer and as such have developed guidelines for the provision of training programs.

The criteria for satisfying the quality review process through VETEC includes;

- qualified teaching staff with current industrial/commercial experience;
- necessary physical resources and learning support services as per syllabus
- course information for students that advises them about code of ethics, course status/recognition, RPL, entry requirements, articulation opportunities general requirements, records associated with the course, student and industry feedback.

The important thing from a teaching perspective is that no one is attempting to tell teachers how they should teach. It is more to do with providing students with every piece of information and guidance to assist them to be more responsible for their own learning, as well as providing professional guidance for teaching staff.

Mt Gravatt College of TAFE (Attachment B) has addressed a good number of the issues raised in this paper and is worth a close look by teaching staff to determine the suitability of its contents to Toowoomba College of TAFE.

The issues that I have raised in this paper are paramount to developing a quality management approach to the teaching and learning activities that our valued students/clients experience while attending Toowoomba College of TAFE. Responsibility clearly lies with teaching staff and I'm sure through a consultative approach to curriculum delivery we should be able to address and document the outcomes for inclusion in our Quality Manual.

In fact one team in the college has already developed some very impressive material (I'm sure there are other examples) in satisfying many of the requirements that have been discussed and one that I recommend people start, is with Christine Dukes and the Business Studies teaching team with the CN160 program that Business Studies offer.

In closing, documenting what we do is a key marketing tool in today's competitive environment and should provide us with an advantage over our competitors and in the long term form the basis through student/industry feedback mechanisms for continual improvement in curriculum delivery.

T A F E

QUEENSLAND ASSESSMENT PRINCIPLES



Definition

Assessment is the process of collecting evidence and making judgements on the nature and extent of progress towards, and achievement of, performance requirements set out in a standard or learning outcome.

Principles

- Assessment practices will open, accountable, and defensible with particular emphasis on fairness and openness to the person being assessed.
- Assessment will be outcomes, focussed and emphasised achievement of learning objectives. It will be an integral part of the teaching/learning process, contributing to it rather than being separate from it.
- Assessment is to be seen as a support for teaching and learning, not as a substitute for them.
- Assessment practices will be flexible and encourage learning to occur in a wide variety of learning settings. Assessment Practices will not place any unnecessary restrictions of how, where and when a person undertakes learning.
- Assessment should be as holistic as possible: that is, multiple methodologies in multiple contexts with, if possible, multiple assessors.
- Assessment should be future oriented, seeking to provide information about what a person needs to do to improve their competence.
- Assessment practices will enable the candidate to take full advantages of prior learning and competencies already achieved.
- Assessment will be valid, reliable, and consistent throughout the TAFE Queensland network of institutions.
- Assessment should be supported by moderating outcomes against standards and audit processes that ensure the maintenance of learning outcomes, both within and across the TAFE Queensland institutions.
- Assessment will be cost-effective to both TAFE Queensland and the person being assessed.
- Summative assessment will be applied only to the extent necessary to assess the competence of the candidate. Excessive assessment leads to increased stress on the candidate, loss of productive learning time, and increased cost to the provider and/or employer.
- Assessment used in TAFE Queensland will not contain bias related to gender or age.
- Assessment used in TAFE Queensland will be flexible and incorporate alternative approaches to suit people who would otherwise be disadvantaged by cultural background, language ability, or personal disabilities.
- All assessment should be against clearly-defined criteria capable of explanation to the student and potential employer.
- Accountability for judgements concerning an individual's competence against the learning outcomes lies with TAFE staff. This does not preclude others (such as industry trainers and assessors) from participating in the assessment process on behalf of TAFE.
- TAFE staff who make judgements about an individual's competence shall be trained appropriately and be able to demonstrate their competence in assessment.
- Assessment for which a TAFE Queensland institution is responsible shall be undertaken in accordance with a quality assurance procedure and/or work instructions for quality-assured institutions. For non-assured institutions, assessment shall be in accordance with an institution policy which:
 - Clearly documents the purpose and practices of assessment;
 - Incorporates regular process audits;
 - Maintains documentation concerning assessments;
 - Is available to students, RPL assesseses and other stakeholders (subject to privacy requirements).
- The right of appeal should apply to all who are assessed. Defensible and well publicised mechanisms for appeal should exist.
- All assessments must be supported by timely and user-friendly reporting mechanisms.

ATTACHMENT B

MOUNT GRAVATT COLLEGE OF TAFE

COMPETENCY BASED TRAINING (CBT) TEACHER OPERATIONAL GUIDELINES

PURPOSE: To assist in the implementation of Competency Based Training (CBT) outcomes and assessment.

SCOPE: Teachers/Tutors

Issued: August 1994

Prepared by: Greg Yeats
Associate Director
School of Engineering

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1. Introduction

This document is to be used to assist teachers in the management of student learning outcomes, but it is not designed as an exhaustive policy to identify all possible issues and situations.

Ongoing addition, alteration and changes are perceived in the development of a comprehensive guideline document. Comments and feedback from educational staff are encouraged.

Competency Based Training (CBT) and assessment supports the philosophy of a person's achievement of set competencies as indicated by the National Industry Training agenda.

In the case of a person being a student of a TAFE Queensland College, the achievement of competencies is determined by assessment instruments based on the learning outcomes in the module descriptor.

Each Module can have quite different outcomes and assessment procedures from that of another.

The actual classroom delivery of a module is dependent on available resources. The issues of flexible entry and exit levels, recognition of prior learning and the ability of a student to test out when required, are concepts which are supported in principle, but are dependant upon major resource changes.

2. Competency tests

2.1 Timing of event

A student would be required to demonstrate competence according to the criteria as determined in the module descriptor. The timing of this event would be at the professional discretion of the Teacher/Tutor responsible for the student and/or outcomes associated with the specific module.

All assessment requirements for a particular module must be provided to the student on the first session of the module, or, in the event of student absence at that session, at the next possible attendance.

This information could be confirmed by a signature and date from the student. The use of an "Student Assessment Acknowledgment" sheet or similar in the Class Record Folder Form 1/125 is suggested.

A timetable of assessment events should also be provided to students to ensure a clear indication of requirements and timelines.

Generally, assessment would commonly occur during the nominal module hours period (additional hours for pre-employment), and after:-

- a) the psychomotor and/or cognitive skills have been demonstrated to the Teacher/Tutor, and
- b) the student learning process has proceeded in a reasonable time.

The total process of learning and assessment to achieve the outcomes of a module would generally be considered completed by the end of the nominal twenty (20) hour, forty (40) or sixty (60) hour period (nominally thirty (30) or sixty (60) hour in the case of pre-employment students).

2.2 Determination of Competency

The professional opinion on a student's competence is always at the discretion of the teacher responsible for that outcome. In the event of further tutorial or retests, the determination of competence may involve a teacher if available, or with a tutor.

Competency based assessment requires one of the following codes to be recorded on the Examiners Return Report (see COLL-ASS.01) for the student relating to a specific activity, namely:-

- "J" competency achieved
- "M" competency not yet achieved
- "T" exemption granted - competency recognised
- "L" unable to achieve competency (apprentices only)
- "Y" limited attendance (apprentices only)
- "AW" No result - withdrawal

In general, competency is achieved when Industry determined standards have been met.

The use of the traditional percentage score to assess the student's competency and abilities is not appropriate for CBT type assessment.

2.3 Articulation Into Higher Education

Where a student in a CBT assessed Associate Diploma or other course wishes to apply for University entry, an allocated grading and percentage may be requested by the student. Percentages cannot be provided, as competency standards achieved, by definition, indicate relevance to a National Standard.

Some Universities provide for articulation of students into their courses only after completion and achievement of the TAFE award. The Associate Diploma of Engineering (CN940) and the Queensland University of Technology (QUT) is one example.

At all times it should be emphasised that TAFE Queensland provides quality vocational education and training programs that are Industry relevant and responsive to developmental needs.

2.4 Retests

2.4.1 Students of Mt Gravatt TAFE

In the event of a student not achieving competency in any or all of the required outcomes of a specific module, then one (1) retest would be made available to the student. The restriction on resources, combined with the magnitude of students at Mt Gravatt undergoing CBT training requires a reasonable limit to be set.

Only under exceptional circumstances, and at the discretion of the Director or relevant Associate Director, additional testing provisions may be provided. A written application from the student would be necessary, listing reasons for additional consideration.

Retests should give credit to previously achieved outcomes by the student, and should involve only those module descriptor outcomes which were not previously demonstrated as competent by the student.

The concept of a currently enrolled student having to retest on all competencies, including those already achieved is in conflict with Industry's demands for recognition of current competencies possessed by the individual student.

In essence, a student (where reasonably practicable) will only be required to demonstrate competencies not yet achieved. The student's previous test or practical task must, if requested, be made available to the student to determine strengths and weaknesses of the individual.

It would be conceivable that this process would be actioned and monitored by the teacher, supported by the use of a tutor (if applicable) where teaching hours are unavailable, within a reasonable time. Tutorial assistance and retests are conducted outside the notional hours for the subject/module.

If considered practicable, a teacher/tutor may return the student's original assessment instrument to the student for retesting. In this case, the student need only answer the questions which were incorrect. Alternatively, a new copy of the assessment instrument, with the "not yet competent" questions to be answered highlighted, could be given to the student as a retest.

It is necessary for accurate records of student competencies to be kept, and accessible in Class Record Folders to ensure consistent monitoring of a student's progress, and confirmation of assessment decisions.

Retesting should not occur until the student has been made aware of competency deficiencies and practised/studied to achieve a positive outcome in the next test by way of individual study and/or tutorial assistance.

The procedure for retest may involve the verbal questioning of the student by the Teacher or Tutor to expand and/or clarify the student's competency. In this case, it is required that written comments are made on the test paper and Class Record Folder, and initialled. The objective of this is to justify assessment decisions and to resolve any issues which may arise at a later date.

The importance of any test/retest of practical skill demonstration must be emphasised to the student whenever possible.

2.4.2 Trade Students (Apprentices)

Policy has been determined in the case of trade students. This basically states that the student is required to attempt all assessment requirements for module outcomes during the attended block.

A student must be given at least one opportunity to achieve the required outcomes of the modules in which he/she is enrolled for that block or other attendance pattern.

In summary, any failures after end of block requires the student to return for a supplementary test. Failure of this test would be a requirement to show cause by the student (see COLL-ASS.09).

2.4.3 Student Transferring to/or from Other Colleges

There may be instances where students have transferred from another College, and have not achieved competency in outcomes of a particular module. As with the recognition of prior learning philosophy, it remains the responsibility of the student to provide evidence of the partial assessment from the previous College.

3. Re-enrolment

In the event of a student not being able to achieve the required outcomes for a module and within the period of instruction, (after being afforded a retest) re-enrolment in the module is required.

The cost would be that amount normally charged, less any enhancement fees not applicable (eg. workbooks already received).

This cost then allows for any/either of the following:-

- re-instruction for the module (dependent upon class/module vacancies);
- further tutorial work, and for a test and retest if required; or,
- a retest

4. Assignments

4.1 Administering

The administering of assignments may be a component in the demonstration of module outcomes. The assignment should be based upon the requirements of the module and objectively set (see COLL.ASS.05)

The assignment tasks are to be discussed with the students, ideally in the first session of the module. A written document should be distributed, outlining the topic, and items/criteria to be included in the assessment to achieve the outcome.

It is also mandatory that a record be kept by the teacher/tutor when distributing the assignment/s by way of a signature on an assignment record sheet.

Due dates are critical, and must be adhered to for a fair and consistent approach to the tasks by the student.

4.2 Overdue Assignment/s

Assignments not handed in by the due date must be recorded by the teacher in the Class Record Folder.

It is the responsibility of the student to prepare and present the assignment as requested by the teacher on the due date, and if necessary, an appropriate academic penalty be applied.

It is imperative that a student contacts the teacher and discusses any issues relating to the assignment not being presented and/or requiring an extension of time.

It is at the sole discretion of the teacher/tutor to accept or not to accept a student's reasons for non compliance. However, it is suggested that for exceptional circumstances, a maximum extension of one week be granted at the teacher's discretion.

Where a student fails to notify, contact and/or respond to present an assignment, a "competency not yet achieved" result is recorded against the student and non issue of award will result. Re-enrolment may then be required in this case.

5. Class Record Folders (Form 1/125, see COLL-TCH.13)

Ideally, a "course record folder Co-ordinator" who has the responsibility of ensuring the folders are up to date for the respective sections would provide a consistent and quality approach to administration of the folders.

This person would best be determined by the teams involved, and the team is strongly encouraged to provide a monitoring process.

Security of Class Record Folder/s must be ensured at all times. These should not be accessible to the students to ensure the integrity of the entries and privacy of other students.

5.1 Location

It is necessary that a central area be located wherever possible to allow storage and retrieval of Class Record Folders. These locations are to be recorded and made available to all teaching areas involved.

The inherent problems associated with recording attendances, absences and achievement of competencies become intolerable when Class Record Folders are unable to be located.

5.2 Accurate Entries

It is essential that time and care is taken by all teachers and tutors who have the responsibility of entries into a Class Record Folder.

The importance of a professional approach to ensuring accuracy and currency of information cannot be overemphasised.

The reality of a number of teachers, at times, being involved with various groups requires a concerted and consistent approach.

The legal requirements, as well as the Freedom of Information Act (see COLL.ASS.07) allow for a student to access information. This can only occur on a Request for Information Application Form 1/074 and payment of the required fee.

Teachers/Tutors must check with CAP/Educational Assistant to ensure that exemption has been processed and approved. Students who have been granted an exemption from subjects/modules after initial enrolment should be recorded as an "E" in the Class Record Folder.

6. Pre-employment Courses

6.1 Module duration

The nominal hours duration for full modules is forty (40) hours and half modules is twenty (20) hours. In respect to pre-employment courses, the modules are increased by 50% to sixty (60) hours and thirty (30) hours respectively. The reason is that pre-employment students are full-time at the College and are not involved in achieving and developing skills in a workplace setting.

Students who achieve competency prior to completion of the nominal module hours must continue to attend, and be provided with competency enhancement skills.

6.2 Progressive results

As pre-employment students often interface with a number of Schools and Departments over their period of training, it is imperative that results for competencies are forwarded as soon as possible to pre-employment Co-ordinators.

This information is critical to ensure that successful students can be presented with an award - post graduation. This allows a momentum for the student to confidently seek employment with academic and skills qualifications.

Privacy of individual student results should be acknowledged, and general display of results in publicly viewed areas is not advised.

7. Recognition of Prior Learning (RPL)

7.1 General

Industry is generally supportive of the recognition of prior learning of a person. This means that skills acquired through workplace and life experiences are a valid form of skill development. The possession of documentary evidence is not the only evidence for progression and/or access to further skills acquisition.

The Procedure Manual for the Implementation of Recognition of Prior Learning (RPL) in TAFE Queensland and TAFE Queensland Administrative Instruction No. 16 are suggested as reference documents (see COLL-ENR.08).

7.2 Challenge tests

The response at this stage to RPL from a Mt Gravatt perspective, is to provide challenge tests to students. These tests are the same tests and/or practical skills that are administered to current students.

Costs incurred are to be met by the person wishing to be given the challenge tests. The actual costs are to be determined by the Director or respective Associate Director.

7.3 Exemptions by Precedent or Other Evidence

Decisions for exemptions on whatever grounds can only be made by the respective Associate Director (for recommendation) and the Director (for final approval). Assessment of student's information by specialist teachers is often required for advice to the respective Associate Director.

An official application for Subject Exemption/s (Form 1/003; see COLL-ENR.06) is required to be submitted by the student.

Certified copies of qualifications, results, employer documentation are required to be provided with the form.

8. Prerequisites for Modules

Pre-requisites are determined by the National Training Authorities, and are integral with the standards of the modular system.

The inability of a student to provide evidence of pre-requisite qualifications will result in the non-issue of "competent" results for that module. Students should be made aware of this on the first session of the module.

Appendix 17

IMPLEMENTING QUALITY at

TOOWOOMBA COLLEGE of TAFE

by

SHAYNE BAKER

QUALITY DEVELOPMENT MANAGER

20/07/94

IMPLEMENTING QUALITY AT TOOWOOMBA COLLEGE OF TAFE

20/07/94

QUALITY ASSURANCE

The development of the college quality manual is a high priority and to assist us in this activity as well as for future document control of our quality system the college has purchased a software package, called FAST TRACK.

In fact after discussion with representatives from other colleges' in the region it was purchased by College of the South West, South Burnett College of TAFE, Dalby Agricultural College and Toowoomba College of TAFE. This resulted in a reduction of the purchase price of \$1000 per college.

Development of the college quality manual has been finalised to draft stage for the eight elements as per AS 3901, and incorporating the following areas:

- | | |
|------------------------------|------------------------------------------|
| 1. Management Responsibility | 5. Purchasing |
| 2. Quality system | 6. Purchaser supplied product |
| 3. Contract review | 7. Product identification & traceability |
| 4. Document control | 8. Process control |

Anticipated completion of draft manual 12 August 1994.

PROCEDURES & WORK INSTRUCTIONS

Andy Darcy has been seconded to assist with the writing of quality procedures and work instructions.

Due to Andy's background and the high number of documented procedures required he is targeting the administration area, followed by the stores and then the teaching area.

Official anticipated implementation of documented procedures for the administration team (most of the procedures are current best practice), will commence once the documents are ready for distribution in late August 1994.

TRAINING

Staff awareness training commenced in May 1994 and to-date the majority of staff at the Bridge Street campus have participated in these sessions.

Participation by staff at the other campuses has not been outstanding to date, but they will be targeted for their involvement during the next six months.

Further involvement of the respective heads of school will also be high on the training agenda over the next six months, to reinforce management support for the implementation of quality at Toowoomba College of TAFE.

These forums have also been used for staff to address issues that affect their ability to provide a quality service to our clients. Some of the recurring themes that were raised through these discussions include;

1. more consultation with commonwealth departments to identify basic entry skills for training programs (ie. numeracy and literacy, learning difficulties), and building-in strategies (in the contract) for streamlining any difficulties that are encountered, be it of a learning or disciplinary nature.
2. procedures for recognising recurring problems with service to computer resources in the college and to ensure a system where each request is recorded and co-ordinated in a systematic manner to ensure sound performance first time, every time this facility is accessed throughout the college. (This facility alone has the greatest impact on the quality of service)

Further Quality Awareness training will be offered this semester in an attempt to gain as much input to the process as possible.

As an institution we also have to ensure that we have sufficient trained staff to undertake audits of our Quality System, as well as external audits of the suppliers to the college of goods and materials (both existing and new).

Internal Auditor training has been successfully completed by;

Mr Haydn Durnell	Mr Shayne Baker
Mr Russell Mason	Mr Jason Hockaday
Mr Hal Hopper	

Valuable auditing experience was gained by Shayne Baker of the Quality System being developed at Southern Downs Community College in March 1994.

Internally I was asked by the office studies teachers to undertake an audit of one of their teaching programs, CN160 Certificate in Clerical & Administrative Skills. This audit was conducted using the VETEC guidelines as a reference point and in my opinion is a sound basis for inclusion in our quality manual (Appendix A).

I propose to organise further internal auditor training in Sept/Oct 1994 and involve staff from a wider cross section within the college. ie. stores, cleaning, maintenance, library and educational assistants.

External auditor training has been completed by Messrs Shayne Baker and Hal Hopper, success is dependent on the outcome of final examination result to be advised by AOQ (Australian Organisation for Quality).

The college is now a corporate member of the Australian Organisation for Quality, an organisation dedicated to education. Journals and other information is being sent by AOQ to all heads of school for their interest and for distribution to their respective teams. There are many interesting articles which cover a wide spectrum, including vocational education & training and industrial issues.

CONSULTATION & COMMUNICATION

Consultation in regards to developing a quality system has been established through the college Quality Development Task Group (Appendix B) and also provides the mechanism for general communication to take place.

Team specific communication is organised through the team meeting procedure and is usually in regards to specific issues that impact on the team.

This network of communication, consultation and networking extends across the region through a Regional Task Group (Chaired by Shayne Baker, refer Appendix C)) and input is often forthcoming from the TAFE Queensland Quality Manager, Mr Alex McGill as to initiatives taking place state wide.

In terms of developing the draft quality manual the strategy being utilised is to;

1. Present the relevant team responsible for the operational tasks with a white paper which identifies some of the features that may be included in a quality system for discussion by the team;
2. Make any amendments or deletions to the document that has been identified by the team;
3. Forward the amended version to the team and then attend a team meeting to finalise agreement for the content of the draft document;
4. The final activity will be to distribute the completed draft quality manual document throughout the college to gain feedback from other staff as to how the document impacts on other teams or work areas; and

5. Make any further amendments to the quality manual and then distribute for implementation across all college operations.

Staff and students have another mechanism for communicating specific incidents or concerns with the college, through the Satisfaction Forms which are located on all campuses.

SUMMARY

The activities that have been described in this report have been an extension of the original implementation plan.

The initial strategy was to dedicate the majority of effort towards the development of the college quality manual, document the procedures that would support the manual and work with teams to ensure these tasks were operationally achievable.

It has become very clear that more emphasis has to be placed on addressing;

- * the day-to-day needs of the staff;
- * involving staff as much as possible;
- * the use of actual operational procedures to satisfy the quality system elements. ie. avoid generating more forms and/or procedures; and
- * highlighting the immense opportunities for staff communication that are available throughout the entire college.

In order for me to maintain my involvement with the groups in the college (ie. CAP User Group, RAT Group, CBT Group and the College Executive) associated with providing a client service that meets the needs of all stakeholders then I will require more support across the college.

The other option is to become less involved in these groups, an action that would be detrimental to the quality development initiative. Particularly in view of the high levels of change that is currently taking place within the college.

Therefore I suggest that through the heads of school we identify teaching staff from each school who in conjunction with some heads of school would be able to contribute to the quality development agenda in a positive and professional manner as part of incidental duties.

The emphasis on leadership is supported by the Academic Quality Consortium members by the following comments:

- * Top leadership must be visible and involved in an

institutional-wide implementation if it is going to have impact.

- * One of the most important things you and your key staff can do is to attend quality management staff development sessions.
- * Do not think that you understand quality management until you have actually engaged in it. Simply reading about it or even attending a workshop is not enough. Much of the learning comes from experience.
- * Recognise that a total personal commitment is required.

Overall, sound progress is being made in terms of changing the culture and developing a college quality system.

Appendix 18

Ref: c:\we\alex\memos\holmes.aud
Tel: (07) 3247 3955:amcg:mer

95/10/34/016
RECEIVED
16 OCT 1995
SOUTH BRUNSWICK
COLLEGE OF TAFE

MEMORANDUM

TO: Administrator
Southern Queensland Institute of TAFE



FROM: Quality Manager
TAFE Queensland

SUBJECT: TAFE Queensland Pre-Assessment Audits

**VOCATIONAL
EDUCATION
AND TRAINING
DIRECTORATE**

7th Floor
30 Makerston Street
Brisbane Q 4000

Locked Mail Bag 2234
GPO Brisbane Q 4001

Tel (07) 247 4259
Fax (07) 247 5206

I would like to take this opportunity to thank you for your cooperation and understanding in allowing me to access the services of Mr Shayne Baker in conducting pre-assessment audits for various Institutes in our quest to meet the TAFE Queensland quality agenda.

Shayne has been my preferred choice as an auditor because of his professional conduct, empathy of the educational process and knowledge of quality management systems.

Feedback from the Institute Directors where we have conducted such assessment has been extremely positive and has benefited them greatly on their respective quality journeys.

It also benefits Shayne by allowing him recognition of his efforts by the quality industry and provides useful professional development in this area.

Once again, thank you for your assistance in this matter.

Alex McGill
Quality Manager
TAFE Queensland

11 / 10 / 95

cc: Mr Shayne Baker



DEPARTMENT OF
EMPLOYMENT
VOCATIONAL EDUCATION,
TRAINING AND
INDUSTRIAL RELATIONS

Appendix 19

Queensland Health

Enquiries to: Alex McGill
State Manager, Disaster
Exercises
Emergency Management Unit
Telephone: 33289045
Facsimile:
File Ref:

TO WHOM IT MAY CONCERN

The following testimonial with regard to Shayne Baker and his role in the quality management initiative in TAFE Queensland is provided without prejudice and based on my professional judgment as the TAFE Queensland State Quality Manager at the time.

In mid 1993 I was tasked by the Executive Director and the Board of Management TAFE Queensland to ensure that every TAFE Institute in Queensland achieved the equivalent of ISO9001 Quality Management Systems standard – by 31 December 2005.

It became obvious to me that not being a person with a pedagogical background I would require significant assistance in adapting the requirements of a standard with its genesis embedded in a manufacturing environment, to that which was both palatable in the educational establishment and effect empathy with the practitioners within that environment.

I became aware of Shayne's work at Toowoomba in the quality management field and began working with Shayne in a professional capacity at that time. After an internal merit based recruitment process, it came as no surprise that Shayne was the successful candidate.

It was then I was able to recruit Shayne on a 0.5FTE, and the only reason I was not able to recruit him on a full time basis was that his own senior management team would not release him full time because of the importance of the work he was also doing in Toowoomba.

Therefore in summary;

- At the time TAFE Queensland was forming 16 Institutes from a multitude of very different colleges around the State – it was here that Shayne's change management skills came to the fore.
- Although his primary role was the introduction of ISO9001 into Central Office it became obvious to me that Shayne would be able to assist in a Statewide capacity.
- Shayne also proposed that we develop an Internal Audit system within TAFE Queensland – and because we had no auditors at the time he further proposed that a

Office
Queensland Health
Insert Office Street Address 1
Insert Office Street Address 2

Postal
Insert Postal Address 1
Insert Postal Address 2

Phone
Insert Phone No.

Fax
Insert Fax No.

course be developed internally but also have external recognition (accreditation) through the Australian National Training Authority.

- Shayne himself developed and designed the course and we both delivered it throughout the State to great effect.
- Not only was this judicious in the context that TAFE Queensland could do this internally – it was cost neutral – in fact we were also able to offer it to external partners.
- Shayne played an integral role in the further development and introduction of ISO9001 into the other Institutes during 1994 and 1995.
- In late December 1995, the final Institute in TAFE Queensland (Mt Isa) gained certification to ISO9001.
- At the time TAFE Queensland became the only educational system in the world to have gained such certification status for all its educational outlets.

In summary, Shayne is both insightful in the way he approaches issues put before him and can often offer some quite thought provoking solutions to some quite complex problems.

It came as no surprise to me that that on completion of his time working with me that his skills, both strategic and operational were recognised by his senior management team with his appointment as the Director of the South Burnett College of TAFE.

Submitted for your advice and consideration.



Alex McGill
State Manager
Disaster Exercise Management
Division of the Chief Health Officer
Queensland Health
33289045
0412204289
12/9/11

Appendix 20

To Whom it May Concern

In 1996 I was appointed by the TAFE Queensland Board of Management to the position of Executive Officer, Videolinq- TAFE Queensland's videoconferencing network, to ensure that TAFE institutes were provided with a coordinated and structurally supported mechanism to be able to implement teaching through the use of videoconferencing and other associated technology.

My testimonial is in relation to the Videolinq management representative from the Southern Queensland Institute of TAFE (SQIT), Mr Shayne Baker.

Of the sixteen institutes that I worked with I found that Shayne Baker was an early adopter who realised the opportunity provided by videoconferencing to overcome the barriers of distance and address equity issues. Shayne accepted the challenge and the responsibility for the application of Videolinq into rural and remote campuses of SQIT as an operational strategy that could make a significant difference to training outcomes in these areas.

During the significant implementation phase from 1996 – 2001, the achievements of SQIT were one of the two most successful implementations in the state as regards the delivery of training using the new technology. I believe that this is due in no small part to the leadership and support provided by Shayne Baker both at a managerial and an operational level.

During this crucial period:

- Shayne advocated and developed the outline of a competency based training program for TAFE teachers using the new technology as an educational tool. This initial program was developed in conjunction with others and became an accredited elective in a TAFE Queensland teaching and training certificate.
- Teachers from SQIT were encouraged and supported to attend and present their contributions to videoconferencing and video-streaming education at the annual Videolinq conference.
- SQIT developed a large range of 'stylised for purpose' blended learning models to support learners (point to point and multi-point) throughout Southwest Queensland, i.e. Diploma of Enrolled Nursing, Rural Studies - Artificial Insemination, Diploma of Business and Certificate courses in Horticulture.
- the technology was advocated and used to facilitate SQIT Advisory Council meetings, staff meetings, teachers' networking meetings and a range of professional development exercises.

My strong working relationship with Shayne highlighted his strategic approach to the challenge of combining the teaching expertise of staff with new and evolving videoconferencing and video-streaming technology in order to achieve outcomes for learners across distance and time.

With regards

Paul Crosisca

Videolinq Manager, TAFE Information Services Group. Information and Technologies Branch. Department of Education and Training and Employment. Queensland Government

e-mail: paul.crosisca@tafe.qld.edu.au; web: <http://videolinq.tafe.net>

Appendix 21



DEPARTMENT OF TRAINING AND INDUSTRIAL RELATIONS

Citibank Centre, 199 Charlotte Street, Brisbane. Postal Address: G.P.O. Box 69, Brisbane, Qld 4001.

Mr Shayne Baker
Director
South Burnett College
Southern Queensland Institute of TAFE
PO Box 2481
TOOWOOMBA QLD 4350

Dear Shayne

Congratulations, you have been awarded a DTIR Staff Scholarship to:

Investigate the use of technology in provision of flexible delivery in Canada and North America and strategies to integrate flexible delivery methodology into the traditional teaching environment; study state and national network systems in support of flexible delivery; develop alliances / professional co-operation with institutions in Canada and North America.

An amount of \$9,620.00 has been assigned for you to complete your scholarship activities. All funds must be expended by 30 June 1997 and you will be required to provide evidence of all expenditure.

At the completion of the project you will be required to prepare a report on your scholarship activities. You will need to provide the Organisation Development Unit with your detailed dissemination plan for this report.

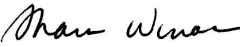
You also need to be aware that if your scholarship entails a leave of absence from your workplace for a period of twelve weeks or more you will be required to enter into a bonding contract.

For further information regarding expenditure and the process to be undertaken, bonding contracts and procedures for overseas travel please refer to Attachments 1 and 2.

Please advise, in writing, that you accept the scholarship and will undertake the nominated activities according to the conditions contained in this letter and Attachments 1 and 2. If you no longer wish to pursue the scholarship activity as outlined in your application, it is imperative that you notify the Organisation Development Unit immediately.

Once again, congratulations on securing a scholarship. I am confident that it will enhance both your personal and professional development and the delivery of services within the Department.

Yours sincerely


DR SHARON WINOCUR
Director
Human Resource Management Branch
17/7/96

Helping to build best practice in Queensland workplaces

Appendix 22

Canada and USA Study Tour – 1997

**Prepared by Shayne D Baker –
South Burnett College Director**

Staff Scholarship

CONTENTS

- 1.0 Executive Summary
- 2.0 Background of Project
 - 2.1 Situational Analysis
 - 2.2 Issues
 - 2.3 Study Tour Objectives
- 2.0 Study Tour
- 3.0 Conclusion
- 4.0 Appendices

1.0 EXECUTIVE SUMMARY

The study tour beginning on 6 April 1997, enabled me to participate in the 77th annual convention of the American Association of Community Colleges (AACC) at Anaheim California. “Visioning for the future”, was the theme and it was designed to challenge traditional approaches to the provision of general and vocational education. The workshops provided active opportunities for delegates to participate visioning activities in the areas of:

- Student development;
- Economic development;
- Technology;
- Teaching and learning;
- Institution development; and
- Educational reform.

While in Los Angeles I visited with the Coast Community College District office and the Coastline Community College at Fountain Valley. Coastline Community College has achieved national and international recognition for the video materials developed for cable and public television networks to offer distance learning.

Travelling north from LA I visited with Yosemite Community College at Modesto.

From California I traveled to Portland Oregon and based myself at the Clackamas Community College and participated with members of staff in some strategic activities and gained insights into a number of the initiatives at this college and at Chemeketa Community College and Portland Community College.

Following on from Portland I then traveled to Tacoma in the state of Washington. A visit at Tacoma Community College before visiting with Seattle Community College, Seattle Vocational Institute and Washington State University. This was my last destination in the United States, prior to travelling to Canada.

The next leg of the study tour took me to Malaspina University College (MUC) in Nanaimo on Vancouver Island in Canada. The university college was celebrating its 60 years of vocational education to the people of Nanaimo and there were a number of activities to highlight this record.

In British Columbia I visited North Island Community College on Vancouver Island and the University of British Columbia, the Open Learning Agency, and the British Columbia Institute of Technology in Vancouver. Vancouver was the final location on the my study tour and headed back to Australia on the 5 June 1997.

Recommendation 1: Computerised telephone enrolments should be implemented on the basis of improved customer service. This will alleviate the need for most clients physically attending college and often having to queue to enrol in a course of study. It would also reduce staff time attending to enrolments.

Recommendation 2: Staff should be encouraged to upgrade their qualifications as a marketing edge and to participate in release-to-industry programs to broaden our organisation's ability to respond to wider business/industry agenda.

Recommendation 3: TAFE Queensland should coordinate on-line delivery across the sixteen institutes as a further basis of collaboration and cooperation that will provide a first class quality product, as opposed to a reliance on the Open Learning Institute to be the panacea to the needs of Queenslanders.

Recommendation 4: The AV services should be offered via a cabled system, as this would ensure a more efficient use of the limited video tapes that are available.

Recommendation 5: Greater flexibility in programming the training of apprentices is a key issue in the American and Australian context and as such, should be a priority in planning as opposed to the personal needs of teachers.

Recommendation 6: Establish alumni and bursaries as a priority, as TAFE institutes would enhance their involvement in their respective communities through such initiatives.

Recommendation 7: Institute Foundations should be a priority as another important initiative to involve communities, to coordinate acknowledgment for outstanding students and/or staff and to provide funding for special activities.

Recommendation 8: TAFE Queensland should investigate the introduction of graded assessment in the competency based training curriculum, particularly if it is to work with the community to recognise outstanding student achievement.

Recommendation 9: In order to develop a culture that will not only support increased numbers of international students but encourage it, TAFE Institute staff should be encouraged to be proactive in the formation of international associations to foster international communication; to participate in and support staff and student exchanges; to host international visitors; and to develop and evaluate appropriate curriculum offerings.

Recommendation 10: Given the need to motivate educational staff, recognise the profession, challenge existing teaching and learning principles, etc. the concept would be transferable into the TAFE system and should be implemented as a system wide initiative. Recommendation 10: Given the need to motivate educational staff, recognise the profession, challenge existing teaching and learning principles, etc. the concept would be transferable into the TAFE system and should be implemented as a system wide initiative.

Recommendation 11: TAFE Queensland should use this type of model to build relationships with Queensland companies and provide an opportunity for teaching staff to utilise their expertise to assist organisations to implement and/or develop specific projects or initiatives.

Recommendation 12: Given the competitive environment between institutes, some form of agreement across Queensland in relation to delivering modules of learning via the internet should be established prior to duplicating effort across the state.

Recommendation 13: As the demand on TAFE to present factual data is a critical issue in the strategic debates at both national and state level, development of this type of resource document should be a priority and adopted as an example of best practice throughout TAFE Queensland.

Recommendation 14: TAFE Queensland could be using this model to have a greater impact on servicing the needs of small business and institutes should investigate opportunities to establish business centres in the central business district in their communities.

Recommendation 15: Technology upgrades should be made throughout the library network, incorporating AV responsibility and with a view to reducing the reliance on a print based collection, that becomes obsolete within 3-5 years Funding should be redirected from the area of print based acquisition into technology resources.

Recommendation 16: Clearly the successes of the institutions visited on this study tour indicates TAFE Queensland needs to increase the scope of the debate across the organisation on how we enter into the international arena.

Recommendation 17: TAFE Queensland should consider adopting similar funding incentives to acquiring funding for specific areas of teaching & learning that do not receive readily identifiable funding allocations. Insomuch, setting up such a foundation would promote community support and awareness of TAFE programs that are in essence more of a community service contribution.

Recommendation 18: Funding supplied to offset the effect of duplication of personnel required to provide a service to communities in rural locations throughout Queensland would be worth considering by the purchaser of training in Queensland.

Recommendation 19: The alliances and services provided by OLA provides a clear mandate for our own Open Learning Institute. The market place is global and the best way for TAFE to compete is by working with other providers of open and distance learning, such as USQ and with the other TAFE institutes in more collaborative manner.

Recommendation 20: TAFE Queensland should be rationalising consortia and special projects into one centre that can provide clear leadership and one stop shop support to the teaching and learning process.

2.0 BACKGROUND OF PROJECT

The recognition for a highly trained and skilled workforce as a means for economic growth in Australia has been a major focus of business and industry since the late eighties.

The development of national competency standards by industry bodies linked to the Australian Qualifications Framework has provided Australians with a vocational and education network that:

- ◆ supports a mobile workforce that may need to enter and re-enter the training arena in response to new technology or changes in career;
- ◆ recognises employees who undertake training to upgrade existing skills and/or knowledge via a suitable remuneration package linked to enterprise bargaining agreements;
- ◆ allows for a higher degree of transportability of qualifications between Australian states and territories, with an emphasis on broad based industry skills as opposed to those that are enterprise specific; and
- ◆ encourages greater articulation between schools and TAFE institutes, and between TAFE institutes and universities.

While the benefits to the end user are without question, the training reform process has had a significant impact on the traditional provider of vocational education and training - TAFE.

The development of competency based training curriculum and teaching and learning resources to support self-paced delivery has been a high priority for the TAFE system across the nation.

Increasingly, the demand from the market place has placed even greater pressure on the delivery network to provide training that supports the adoption of learning approaches which do not rely solely on traditional, classroom based face-to-face teaching.

This flexible approach is fully endorsed by the Australian National Training Authority (ANTA) as a basis for achieving the goals of the national training reform agenda.

“Flexible delivery of vocational education and training competency based courses is a national priority to meet the needs of diverse range of clients both individuals and industry, and to support life long learning.” (ANTA 1994)

Senior management of TAFE Queensland have recognised this fact and as a consequence, have established a position within the Vocational Education and Training Directorate for developing systemic policy in relation to flexible delivery and teaching and learning. To some extent the prime delivery units (16 institutes) within the TAFE Queensland network are responsible for developing their own

strategies in relation to flexible delivery and there is a need to develop expertise in this area.

2.1 SITUATIONAL ANALYSIS

The Southern Queensland Institute of TAFE (SQIT) is one of the sixteen institutes that makes up the TAFE Queensland network. SQIT comprises colleges at Toowoomba, Kingaroy, Warwick, Roma and Nurunderi (Cherbourg), with campuses located at Charleville, Dalby and Stanthorpe.

It also takes in 38 local government authorities in the institute district.

“The Southern Queensland Institute of TAFE covers an area of some 485000 km or 28.0% of the total surface area of the state of Queensland. It extends some 1100 kms from Gatton to the South Australian border east-west at its widest, and at its longest some 500 kms from the New South Wales border to Augathella at its widest”. (RNA TAFE Queensland)

The tyranny of distance is obviously a major obstacle for this institute in providing vocational education and training for the people who live and work in the institute district. Because of this geographical spread, people encounter difficulties in attending some of the sites that are available to them. Transport to and from the various colleges/campuses is without doubt the greatest obstacle.

This is particularly the case with training programs for the rural industry.

The seasonal nature of working in a rural environment combined with the long working hours tends to preclude people in this industry from accessing further training and development opportunities.

In response to this situation the Southern Queensland Institute of TAFE has developed a number of programs that rely on a flexible delivery methodology including:

- ⇒ a print based flexible program under the National Traineeship for the dairy industry;
- ⇒ the Certificate in Rural Office Practice (CROP), a national program developed in South Australia;
- ⇒ a Certificate in Farm Management program accredited by the NSW Department of Agriculture;
- ⇒ a cross border project with the New England Institute of TAFE, delivering a range of programs throughout the northern New South Wales and southern Queensland which has been under way for the past twelve months and utilises computer managed learning (SMART 2000 software);
- ⇒ a Certificate of Meat Industry Processing which is delivered as a joint venture between the South Burnett Meatworks at Murgon and SQIT - Kingaroy; and

⇒ a joint venture between SQIT and the University of Southern Queensland (USQ) for the delivery of tertiary programs to Aboriginal and Torres Strait Island people which is currently under negotiation.

While there is no denying the positive efforts to date, there is still a long way to travel on the flexible delivery journey before SQIT can make real inroads in this field.

The need for professionally developed training programs for the agricultural industry is a challenge that has yet to be fully addressed by the vocational education and training systems.

The management of SQIT has identified flexible delivery as one of the key strategies in its efforts to satisfy the national training reform agenda and a priority in developing business for the remote rural colleges and campuses.

Traditional face-to-face delivery is simply not working in these remote locations and if the institute does not embrace innovative methods of delivery, then the future of these sites is uncertain.

TAFE Queensland and SQIT management is certainly not aiming to reduce business or its potential to deliver vocational education and training to an ever growing market. Rather the desire is to grow the business, both nationally and internationally through a flexible delivery methodology.

2.2 ISSUES

In developing a flexible delivery culture within TAFE, there is a need for gaining the acceptance and support of the operational teams that are facilitating the teaching and learning activities.

One strategy to achieve acceptance and support that has great potential for the institute is to develop a close working relationship with the University of Southern Queensland.

USQ is a recognised leader in the field of distance education and flexible delivery. This reputation has been further enhanced by the invitation of the International Council for Distance Education (ICDE) to USQ to establish a sub-secretariat for a term of two years. This honour has only been bestowed upon three other universities in the world and firmly establishes USQ as the leading institution for distance education in Australia and the Pacific.

For SQIT the benefits of such an alliance will be the development of quality resources, training opportunities for staff, joint ventures between TAFE and USQ, and most importantly, the flow on benefits to a community eager to undertake vocational education and training.

So, the challenge in providing programs of a flexible nature is;

- overcoming the prohibitive costs of resourcing (both technological and human),

- changing the culture of staff to recognise that coordinating a flexible program should become a normal component of teaching programs,
- training staff in the use of new technology and teaching methods,
- developing a holistic approach that is not constrained by national or international borders,
- targeting areas that are better served through a flexible delivery approach, and
- developing significant expertise in flexible delivery of TAFE personnel.

2.3 Study Tour Program Objectives

In submitting a proposal for a Staff Scholarship it is envisaged that TAFE Queensland will gain from the development of further expertise within the system, that can provide strategic leadership in the resolution of the issues associated with the implementation of an open and flexible delivery strategy.

1. To investigate the use of technology in the provision of flexible delivery in Canada and in North America.
2. To investigate the strategies utilised in these settings to integrate flexible delivery methodology into the traditional teaching environment.
3. To develop alliances with institutions that could provide a continuing source of professional cooperation between vocational education and training providers in Australia, Canada and North America.
4. To study the state and national vocational and technology education network systems in place for the support of flexible delivery.

3.0 STUDY TOUR

3.1 UNITED STATES OF AMERICA

3.1.1 Coast Community College District, Orange County, California - 9 April 1997.

Visit hosted by Mr. Frank Favaro, Director Computer Services at the Coast Community College District headquarters for Orange County (refer Appendix A).

The district services three distinct two year colleges, Orange Coast College at Costa Mesa, Golden West College at Huntington Beach and Coastline Community College at Fountain Valley. The total population in the Orange County area is 716 000 people. The district office has a board of trustees as do the colleges. The trustees have direct input and responsibility into the direction the organisation needs to be moving, as well as the selection and recruitment of senior staff.

The colleges provide programs for a total population of 55 000 FTE students and have a total budget of 132 000 000. The budget is allocated to the district office and then allocated to the three colleges. The state of California funds the bulk of the activity at a flat rate per student, regardless of the type of course being undertaken.

Interestingly, adult and community education programs are not offered through community colleges in California. This program area is outsourced by the government to external agencies.

The district office provides the administrative technical support to the colleges and has established a computerised telephone registration system, which caters for the bulk of student enrolments. Students who do not enrol by the designated period are able to enrol through a standard application process or if places are available, they may enrol by attending the first scheduled class and complete an in-class enrolment form.

In an effort to encourage greater participation of people from all age cohorts, the state has established a fixed enrolment fee of \$13-00 US for residents of California, and \$114-00 US for non-residents. There is no extra charge for international students.

Teaching staff are employed to work their normal teaching load from Monday to Saturday, between the hours of 8:00am and 10:00pm. A teacher delivering an entire program of theory based classes would be scheduled for 15 hours per week; a composite schedule theory and practical would equate to 18 hours per week and a trade based workshop program would equate to 21 hours of teaching out a total attendance schedule of 30 hours.

There is no penalty rates or recognition for a teacher who works evening classes or on Saturdays, and any hours worked by a teacher in excess of the standard program are classed as overload and paid at a set rate of approximately \$25/hr US.

Salaries for faculty (or teachers) are similar to TAFE teachers salary range in Australia, ranging from about 30K US to 47K US with a slight increase for people

with doctorate degrees. Most teachers possess master degrees as a minimum qualification and are strongly urged to undertake higher level programs, as well as release to industry to maintain currency.

The colleges in this district work on a two semester year of 18 weeks duration, with some classes running over 9 weeks, as well as some courses require weekend class attendance.

Recommendation 1: Computerised telephone enrolments should be implemented on the basis of improved customer service. This will alleviate the need for most clients physically attending college and often having to queue to enrol in a course of study. It would also reduce staff time attending to enrolments.

Recommendation 2: Staff should be encouraged to upgrade their qualifications as a marketing edge and to participate in release-to-industry programs to broaden our organisation's ability to respond to wider business/industry agenda.

3.1.2 Distance Learning

Coastline Community College, Thursday 10 April 1997.

Visit hosted by Mr. Ron Berggren, Vice President Student Services and Economic Development. Ron is also responsible for the overall management of the distance learning program at the college.

Coastline College is not a bricks and mortar college as such, but rather a development and administration centre. Many of its programs are offered at four learning centres in Orange County and through an elaborate network of over sixty community centres. Students also may take classes from their homes or workplaces by enrolling in broadcast telecourses and live cable television classes. These combine old technologies such as the telephone, mail and fax, with new technologies such as computers, the internet and CD-roms.

Complementing this entire operation is the Emmy Award winning district cable television station broadcasting 1500 hours of telecourses per year to an LA audience of potentially 27 million people. This cable system uses professionally produced videos which are produced as a true documentary and incorporate the necessary learning outcomes. The videos are normally two years in the making. The college employs international and national experts who are paid to come together as a multi-disciplinary team to develop the videos.

The college provides every public library in Orange county with free copies of the videos to provide students with another form of access and to encourage greater participation of the community in education. The finished products are available for sale and sold throughout the world for use in distance education courses. The printed materials for these courses usually contain the current textbooks that are purchased by the student through email or via mail order.

3.2 American Association of Community Colleges 77 Annual Convention Anaheim, California April 12 - 15 1997

The American Association of Community Colleges is the primary advocacy organisation for the nation's 1100 two-year degree granting institutions. The association is a non-profit organisation located in the National Centre for Higher Education in Washington.

It was established in 1920, to promote the causes of its member colleges through:

- ⇒ legislative advocacy
- ⇒ monitoring of national issues and trends
- ⇒ collection, analysis and dissemination of information
- ⇒ representation to other educational agencies and the national media
- ⇒ research and publication of news and scholarly analyses.

3.2.1 American Community Colleges Statistics

Enrolment:

10.7 million students (5.7 million credit; 5 million non-credit)

47% of all US undergraduates

49% of all first-time freshman

Member college enrolments - from 200 to 100 000 students

Student Profile:

43% of all African-American students

57% of all Hispanic students

42% of all Asian/Pacific Islander students

54% of all American Indian students (percentages based on all US students enrolled in higher education)

58% female; 42% male

63% part-time; 37% full-time (12 credit hours or more)

Average student age - 29 years

Tuition & fees:

\$1 392 annual average

Degrees & Certificates:

Over 400 000 associate of arts degrees

Nearly 200 000 1 and 2 year certificates (annual)

Access:

Over 90% of the US population is less than an hours drive from a community college campus.

Training:

97% of community colleges partner in workforce training for business and industry

65% of nurses and allied health care professionals are trained by community colleges.

Training for 7 of the top 10 “hot” jobs identified by Bureau of Labor Statistics for the next century are available at community colleges.

Graduate income:

A person with an associate degree can expect to earn a million dollars in a normal career, nearly a quarter of a million more than a person with only a high school degree or equivalent.

The 1997 convention theme was Visioning, and was designed to challenge attendees to participate at looking to the future - to visualise and contemplate the path on which community colleges may find themselves. The forums and workshops were offered around specific themes, including student development, economic development, technology, teaching and learning, institutional development and educational reform.

The convention was attended by over 2000 delegates, the majority being college presidents, vice presidents of community colleges and/or deans of various faculties.

3.2.2 Conference Workshops

Workshop C: Blueprints: A New Teaching and Learning Framework

This session identified and discussed several learning models that exhibit the sharpening focus on the role and responsibilities of students in learning. It revealed the evolving function of faculty as mentors and guides to learning, and presented demonstrations of technology applications that enhance these learning models.

Forum D6: Educating for the Global Community: A Framework for Community Colleges

This session reported on the November 1996 conference co-sponsorship by the Stanley Foundation and ACIIE that brought together community college leaders and representatives of business, government, and NGOs to address two issues: How do we define a globally competent student? What is required institutionally of community colleges to educate such a student? The report of conference proceedings was distributed (report held by S.D. Baker).

Forum A11: Alumni Associations: A Positive Impact on the Future

This session addressed the key ingredients and a formula for success in alumni program development at community colleges (refer Appendix B).

Forum C18: The Awakening - Technology, Your Link to the Future

This session presented an overview of the process of establishing and maintaining a professional looking and comprehensive web site using limited resources as part of an overall plan to upgrade technology systems across a campus (refer Appendix C).

Forum A13: The International Community College: Developing a Comprehensive Plan

A broad overview was given of the components necessary to develop a strategic plan for international curricula, faculty development, student services, ESL, and study abroad. Resources and models were shared by the presenters. (resource manual held by S.D. Baker)

Forum E73: Visions to Reality

This session highlighted Clackamas Community College's VISIONS planning process that encompasses departmental outcomes and plans, institutional measures of effectiveness, broad strategic priorities, and an annual focus for institutional visioning (refer Appendix D).

Special Session: The Learning Revolution (refer Appendix E)

Forum E93: Visions of Collaboration: Going There Together

This session addressed the question - Why do some partnerships succeed while others fail? It was a participatory session which explored the process and practice of collaboration by reviewing Oregon, California and Washington models. Examples highlighted connections between K-12, faculty, business, agencies and colleagues. Using these models, personal experience and what is known from research, participants gained some insight into identifying common patterns to guide their future visions.

Forum C102: What About Us ? Serving the Needs of Rural America via Distant Learning

This session explored the issues faced by rural colleges as they move into distance learning and highlighted how three colleges have used collaboration, partnerships, and creativity to design three very different distance learning solutions for their rural students. Examples illustrated how successful programs are using videotapes by mail, ITFS, two-way video, and the Internet (refer Appendix F).

Forum D119: Will All Instructional Leaders Please Stand Up! A Two Part Session on Improving Instruction in Community Colleges

This session covered systems thinking as a basis for outcomes assessment and the improvement of instructional quality. Specific tools and strategies that leaders can use in their own institutions were presented (refer Appendix G).

Forum D135: Adult Learning in Community Colleges: A National Profile

This session described how, where, and when adults begin or return to community colleges for post secondary education. The College Board's national study collected information from Americans who were enrolled in community colleges when they were 25 years of age and older. The session provided hard data and useful insight

about community college appeal to older student and what can be done to meet their demands over a lifetime.

3.3 YOSEMITE COMMUNITY COLLEGE DISTRICT

3.3.1 Modesto Community College 18/19 April 1997

Visit hosted by Ms. Pamila Fisher, President of the Yosemite Community College District at Modesto, California on Friday 18 April 1997.

The district comprises two colleges, Modesto Junior College at Modesto and Columbia College at Sonora, California.

Modesto Junior College services a city of 169 297 people with a total county population of 369 000 people and has two locations in the city.

Programmes are offered to students in preparation for university transfer to Californian State Universities, entry level employment and career advancement. The college offers courses in 12 areas of instruction, including:

Agricultural;	Engineering;
Arts/Humanities/Communications;	Mathematics & Physical Sciences;
Behavioural and Social Sciences;	Health Occupations;
Biological Sciences;	Home Economics;
Business;	Literature and Language Arts;
Criminal Justice;	Trade and Technical Education.

The college is very involved in the community by presenting films, lectures, art exhibits, bus trips, sports, drama and music events.

3.3.2 Columbia College

Founded in 1968, this college presents an emphasis on a comprehensive general education leading to an associate degree and/or an occupational certificate or transfer.

It offers vocational programs in hospitality management, fire technology, forestry technology, emergency medical services, child development, civil drafting technology, automotive technology, business administration, computer science, natural resource management, office technology, real estate and teacher aide.

The college caters for approximately 2 500 students, 42% are male and 58% are women. The majority of students, 43%, are in the 18-24 years age bracket. Another 26% of the students in the 35-54 bracket.

The college employs 42 full time teachers, with a further 80 employed on a part time basis.

3.4 OREGON STATE 22 April - 5 May 1997

The sixteen community colleges in Oregon are independent institutions that are governed by their respective boards (refer Appendix I). Funding is allocated on the basis of the colleges providing educational programmes on a full time equivalent basis (FTE) of \$4200-00 US per student, with another \$1800-00 US per student per year through student tuition fees.

The amount of funding is based solely on numbers of students and no adjustment is made for the differentiation between course types, such as engineering, social sciences, office studies. Separate funding is made available for specific activities, such as distance learning, literacy and numeracy through state and federal grants.

1994-95 Statewide Expenditure Breakdown for Oregon Community College

Instruction	53.45%
Instruction Support	9.82
Student Services	9.56
College Support	17.30
Community Support	0.50
Plant Operation/Maintenance	9.37

Enrolment figures indicate that the breakdown of student enrolments (on average) is 50:50. That is, 50% of students are undertaking programmes for direct transfer to a four university programme, while the remaining students are attempting to obtain a vocational outcome to enter the workforce with an associates degree.

Teaching staff are required to possess a masters degree in the related discipline area in which they desire to teach before they can be considered for appointment to a full time teaching position. As a consequence, the colleges have a slightly larger proportion of part time staff than full time staff.

3.4.1 CLACKAMAS COMMUNITY COLLEGE

Extended visit with home stay was hosted by the management and staff of Clackamas Community College beginning on Tuesday, 22 April 1997, until Monday, 5 May 1997.

The bulk of full-time students at Clackamas are 23 years of age, while the average for the total college population is 33 years of age. Full-time equivalent enrolments for the 1994-95 year was 4 696 and programs are offered under five broad headings of professional/technical, college transfer, literacy/basic skills, continuing education and business training.

The college advocates a student focussed philosophy and this is evident in the college's vision statement, "Our purpose is creating lifetime opportunity for success through responsive education".

3.4.2 Computer Aided Drafting – I met and toured the college's CAD facilities with Terrance Schumaker, international author of AutoCAD reference and

instructional books. He presented me with a selection of his current publications for the benefit of students at Southern Queensland Institute of TAFE (SQIT). These resources subsequently have been presented to the SQIT Library at the Toowoomba Campus.

3.4.3 Distance Learning - I was able to participate with Ms. Elizabeth Goulard, Dean of Instructional Services, in a state wide meeting of college representatives charged with the responsibility of developing a comprehensive distance learning plan. This was an initiative from the Strategic Plan of the Oregon Community Colleges for Distance Learning (refer Appendix J).

The committee comprises sixteen community college representatives from faculty, student services, library, instructional support, student and administrative interests, as well as the Director of Distance Learning for the Oregon Community Colleges.

Linked to the development of the strategic plan is a range of policies (such as curriculum and instructional issues, resources and services and guidelines and library support and student services) to address issues associated with the implementation of distance learning.

Similar to our environment in Queensland, colleges in Oregon have evolved into a smorgasbord of curriculum delivery of resources to distant learners. Some technologies are not available at all colleges and some colleges have only limited experience in the use of distant learning applications. Others have technology, expertise, and experience and are effectively utilising their distance learning resources to engage in the development of further distance learning applications and systems.

Course offerings in Oregon are offered over four quarters of 11 weeks duration. Students are able to undertake programmes through a range of options at colleges, including telecourses, video courses, taped, on-line and print based materials.

3.4.4 Learning Resources - As a follow-up to the state meeting, I met with Ms. Cyndi Pucci-Andrews (working with Liz Goulard), Director of the Learning Resource Centre, incorporating library, media services and the learning centre at Clackamas Community College. Cyndi is also responsible for developing an action plan and timeline to facilitate the institution's strategic response to distance learning. (refer Appendix K).

Distance learning at Clackamas Community College is facilitated through telecourses utilising videotapes that are produced by other community colleges, such as Coastline in California. The college has videoconferencing facilities and students can utilise AV resources via a cable system that staff book with the learning resource centre. This provides an on-site system that all staff can access and reduces the potential for conflict when staff take the resources out of the resource centre.

Recommendation 3: TAFE Queensland should coordinate on-line delivery across the sixteen institutes as a further basis of collaboration and cooperation that will provide a first class quality product, as opposed to a reliance on the Open Learning Institute to be the panacea to the needs of Queenslanders.

Recommendation 4: The AV services should be offered via a cabled system, as this would ensure a more efficient use of the limited video tapes that are available.

3.4.5 Apprentice Training

Glen Ferris, Associate Dean of Instruction, provided me with information on apprentice training and a tour of the facilities’.

Apprenticeship training is provided at Clackamas for apprentices in the building industry and is facilitated at a complex that was built by students with joint funding from the community, industry and the college. Apprentices attend college after their normal working hours, for approximately two nights per week for four years.

The college has also been able to provide training in the building industry for Japanese students from a sister city, who have contributed both finances and labour to establish the training facility, as well as for the actual training.

Any other vocational programme that is run at the college under what we would refer to as an apprenticeship, is offered as a two year associate degree in the specific area, such as automotive, engineering manufacturing, metal fabrication and welding. (refer Clackamas catalogue held by S.D. Baker)

Recommendation 5: Greater flexibility in programming the training of apprentices is a key issue in the American and Australian context and as such, should be a priority in planning as opposed to the personal needs of teachers.

3.4.6 Gift Planning

Ron Nordeen is the Director of Gift Planning. He works very closely with the college president in securing gifts from estates, business/industry contributions (for tax incentives) and even from staff who are gifting some funds to the college (refer Appendix L).

The funds generated from some of the gifts are then invested and the interest earned is distributed annually to specific areas, such as student scholarships, library resources, teaching and learning resources or as specified by the donor for academic development.

Funds for the purpose of student scholarships may provide limited direct benefit to college growth. However, the offering of a large number of student scholarships is a marketing initiative that makes enrolment at Clackamas more desirable to students, and ultimately tends to attract a better academic pool of applicants.

Other funds are obtained from support from the alumni. An increasing effort is being directed towards this very important area of support and directed toward the concept of learning for life in the American community college environment.

Recommendation 6: Establish alumni and bursaries as a priority, as TAFE institutes would enhance their involvement in their respective communities through such initiatives.

Recommendation 7: Institute Foundations should be a priority as another important initiative to involve communities, to coordinate acknowledgment for outstanding students and/or staff and to provide funding for special activities.

Recommendation 8: TAFE Queensland should investigate the introduction of graded assessment in the competency based training curriculum, particularly if it is to work with the community to recognise outstanding student achievement.

3.4.7 College President

Dr. John Keyser is the President of Clackamas Community College and he works with key management personnel and with the board of trustees (refer Appendix M).

Dr. Keyser's approach is based on a collaborative model. I was able to observe his approach first hand, through the weekly president's forum (structured along the lines of an Institute Advisory Committee) and through discussions with other members of staff.

He described his role to me as one of supporting staff and encouraging them to be innovative, while representing their interest with the board.

The board of trustees, as apposed to institute councils in Queensland, is an honorary governing body that is democratically elected by the community (on a voluntary basis), for a period of three years. The Board appoints the management staff of the college (twelve month contract with performance agreements) and have a significant role in the appointment of college faculty. As well, it assists with planning the general direction that the college will be taking and how expenditure of college finances should be prioritised and directed.

3.4.8 International Programs

Clackamas is taking a proactive approach to internationalising the institution.

The college has an active international committee, chaired by Glenn Ferris, as a standing committee that works towards a multifaceted goal of increasing opportunities for international cooperation in the provision of vocational education.

Members of the committee actively support international visitors through home stays, facilitating teacher exchange, international visits and any other activities that will contribute to greater international educational opportunities.

This interactive approach has involved a number of staff from different areas in a very positive professional development activity that has had an extremely positive influence on staff morale while allowing the college to move from having very little international activity to an increasing awareness and desire to grow as a significant contributor in the international arena.

The college has established sister college relationships with a college in Sheffield, England and with the Silpakorn University in Bangkok Thailand (refer Appendix N as an example).

Recommendation 9: In order to develop a culture that will not only support increased numbers of international students but encourage it, TAFE Institute staff should be encouraged to be proactive in the formation of international associations to foster international communication; to participate in and support staff and student exchanges; to host international visitors; and to develop and evaluate appropriate curriculum offerings.

3.4.9 Excellence in Teaching Program

Mr. Dave Arter, science faculty member has taken on the responsibility of coordinating the Excellence in Teaching Program at Clackamas Community College (refer Appendix O).

From my earlier experiences, the type of program is something that has wide spread support across the country and was also a topic for AAAC Annual Conference in Anaheim. From my earlier experiences, the type of program is something that has wide spread support across the country and was also a topic for AAAC Annual Conference in Anaheim.

The philosophy behind the concept is to maintain the teaching profession's focus on teaching and learning through discussion groups, guest speakers, professional development activities, communicating research findings and relevant papers and general recognition and promotion of teaching and learning activities throughout the college and wider community.

The program at Clackamas has been in operation for three years and the purpose is to promote excellence in instruction through the provision of professional development, support of innovative teaching and promoting communication and cooperation among faculty staff at the college and with other educational institutions.

The program is managed by a seven member advisory committee consisting of five full-time faculty, one part-time faculty and one administrator, with the day-to-day operation provided by Dave Arter.

Activities that were supported during the previous term included instructional use of the internet, instructional use of multimedia, collaborative learning, critical thinking in relation to teaching and learning and interdisciplinary instruction. These priorities were determined through a survey of staff and the activities resulted in action learning groups coming together twice per term .

The groups facilitated a number of workshops, achieving a number of outcomes, including:

- construction of a web page with links to web sites and references on using the internet in teaching;
- satellite broadcasts on teaching and learning through the internet;
- six two hour workshops on the use of *Authorware* software for multimedia application; and
- discussion group on collaborative learning and critical thinking in group learning.

Funding has also been provided for grants to staff to undertake individual and team development, production of a faculty newsletter, and the establishment of a Teaching Excellence Library.

The program is one of many similar programs conducted by 18 Oregon community colleges

Recommendation 10: Given the need to motivate educational staff, recognise the profession, challenge existing teaching and learning principles, etc. the concept would be transferable into the TAFE system and should be implemented as a system wide initiative.

3.4.10 Educator Internship Program

An initiative that appears to be very innovative, whilst providing faculty with opportunities throughout the state to work with business, is the ETP facilitated between businesses and the college through the Business Education Compact (refer Appendix P).

The compact is coordinated by the school district and provides all educators with work experience placement opportunities with companies such as, Blazers, Epson, Tektronic, NEC, Intel Corporation, Boeing and McDonalds. The internships are open to teachers, administrators, counsellors, career coordinators and school-to-work coordinators.

The internship provides opportunities for educators and business, industry or other government agencies to work together in a cooperative manner. The key skill development opportunities are in communication, leadership, organisation, evaluation and creativity.

Positions are offered in such diversified areas as research assistant, technical writer, curriculum advisers, work experience coordinator, internal auditing, PC specialist, customer service troubleshooter and market research.

Recommendation 11: TAFE Queensland should use this type of model to build relationships with Queensland companies and provide an opportunity for teaching staff to utilise their expertise to assist organisations to implement and/or develop specific projects or initiatives.

3.5 CHEMEKETA COMMUNITY COLLEGE

Chemeketa Community College focuses its activities on four areas of study; professional-technical, college transfer, lifelong learning and developmental skill building (or general education) for its 5000 full-time students.

The college employs over 245 full-time faculty and offers programs at Salem, or at four other campuses, schools or other locations in communities throughout the college district.

Chemeketa Community College is recognised in the state of Oregon for being innovative in the field of distance learning, in particular on-line delivery.

On-line delivery requires each student to have access to a personal computer, computer modem and telephone line to send and receive messages. These messages become the lectures, discussions, questions, answers and other interaction that generally occurs in traditional on-campus classrooms.

Courses are offered through video tape, telecourses and more recently, via on-line technology. On-line learning has proved very popular and the college has a current enrolment in excess of 500 students.

There is no dominate strategy in place for the provision of on-line courses. Each faculty team submits a request to deliver on-line and then is asked to prepare a business case for consideration by the Director of Chemeketa On-line, Janet King. The formation of a suitable learning strategy is developed with faculty members and appropriate training and resources allocated to facilitate the offering.

As a participant in the state wide initiative to work in a collaborative manner with the other community colleges, Janet King expressed concern at the involvement of her institution in the activity. The concern was based on the development that has already been achieved by Chemeketa, and the risks taken by them to get them to the point where they are now the leaders. Understandably there is obvious reluctance for Chemeketa to surrender what they consider as their competitive advantage over the other colleges.

The competitive issue is based primarily on the level of funding allocated by the state on the basis of full time equivalent (FTE), and any surplus student enrolment is not funded. The general enrolment trend at a number of community colleges is below expectations and is attributed to the relatively high employment rate in the USA.

Recommendation 12: Given the competitive environment between institutes, some form of agreement across Queensland in relation to delivering modules of learning via the internet should be established prior to duplicating effort across the state.

3.6 PORTLAND COMMUNITY COLLEGE

Rock Creek Campus

Portland Community College is the largest college in the state of Oregon, comprising of four campuses located within the Portland district. The FTE is 18 500 with 72% attending during the day, 24% evening attendance and 4% on a weekend.

The average student at Portland Community College is 36 years of age, female, employed on a full-time basis and studying towards an associate degree.

The college provides students with a very extensive career counselling service (refer Opportunities - Portland Community College, held by S.D. Baker), under the broad headings of Arts & Communication, Business & Management, Health Services, Human Services, Industrial & Engineering Systems and Natural Resources.

Students are expected to contribute towards the facilities the through a levy contributed as a student activity fee of \$2-00/term for one to five credits; or \$7-00/term for six or more credits; and a technology fee of one dollar per credit hour (not to exceed \$15-00 per term).

Some of the expense can be offset through the financial aid schemes that are available via grants and scholarships, low interest loans and through part-time work.

Executive Deans report to the college president, who works with a single college board (consisting of nine elected people from different zones) in making decisions across the college district.

Distance education is provided through a separate unit that operates out of shopping centres and community centres throughout the city. The Executive Dean (Director) of Rock Creek has responsibility for the Rock Creek Campus, as well as the distance learning programs.

Distance learning programs are delivered via the internet and/or modem access to a college computer server. Students are expected to ensure that they have access to an appropriate personal computer and software configurations.

Thirty subjects are provided by telecourses via cable television or by videotapes that can be accessed at a number of the centres throughout Portland or via tape rental service. Six learning opportunities are offered through what is known in Portland as Tel-net (interactive television).

Portland Community College produces what is known as the Portland Community College Fact Book (held by S.D. Baker), an institutional research document that captures relevant market research and statistics about the students who attend the college. This is a valuable resource for the community, government and the college.

The following facts and data contained in this document assisted the college in determining its direction for the future. There are more females enrolled than males in all program areas; the average age of students enrolled is 36; a total of 359

international students from 43 countries enrolled at Portland Community College last year; and 1 in 11 residents in the PCC catchment area enrolled in classes offered by the college last year.

Data is collated on enrolments, students, academic and financial resources, and college personnel for each of the specific campuses. Probably the most pleasing aspect of this resource document, is the user friendly approach taken in presenting the data. For example, the attached pie chart shows the Distribution of General Fund Revenue Sources 1995-96, with 46.3% from the state, 21.7% from tuition fees, 0.3% from federal, 19% from local and 1.5% attributed from other sources.

Recommendation 13: As the demand on TAFE to present factual data is a critical issue in the strategic debates at both national and state level, development of this type of resource document should be a priority and adopted as an example of best practice throughout TAFE Queensland.

3.7 WASHINGTON STATE 6 - 15 April 1997

Vocational education and training in the state of Washington is divided into the community colleges for college transfer programmes and technical colleges for trade specific programs.

The colleges are part of state wide structure and have less ability to make decisions than their counterparts in the state of Oregon. This is particularly the case in relation to issues that may impact on staffing levels, such as outsourcing of support services, industrial relations, staff appointments and tenure.

3.7.1 Tacoma Community College

Tacoma Community College is located 35 miles south of Washington and services a population of 200 000 people in the city (refer Appendix Q). The delivery of programs in the main, is through a traditional face-to-face method. The college is only just beginning to enter into offering a range of fee for service type programs, though staff are not supportive of becoming involved in commercial training and development work.

Similar to some of the other places I have visited, this college offers touch phone course registration, uses enrolling student's social security numbers as their student ID numbers and offers programs across the full spectrum of university transfer, vocational education, workforce training and general education. One concept worth noting was that the college's handbook covers a period of two years.

3.7.2 Off-Campus Sites

The college administers two off-campus sites. One is a traditional campus with standard programs offerings and services. The other site is located in the city heart and offers cutting-edge training to organisations and students seeking a flexible schedule of programs. The centre facilitates training programs in business, small business development, total quality management, office skills, supervision and management.

The self-paced computer laboratory provides learning opportunities in accounting, typing, business machines, data processing and other office related courses.

The centre offers a bureau service for people seeking answers or researching how to start a business. It provides a great deal of the information through on-line computers. People can obtain 24 hour access to software to develop a business plan, labour and industry information.

Similar programs were also conducted in Portland as a proactive response to small business needs. These programs enable greater opportunity for access to learning and research opportunities for people in the CBD.

Recommendation 14: TAFE Queensland could be using this model to have a greater impact on servicing the needs of small business and institutes should

investigate opportunities to establish business centres in the central business district in their communities.

3.7.3 Library Services

While the college has not taken major steps into the flexible delivery mode the library services offered at Tacoma Community College is predominantly an on-line service with the library staff providing hands on assistance to students to research and print hard copy of information.

The primary reason for this situation is due to significant reduction in funding to the library over a number of years. The currency of the print based material is therefore very questionable as no expenditure is provided for print based materials, that is books and/or journals, periodicals. More emphasis is on-line technologies, video network technology and CD-rom throughout the college.

Technology has provided students and staff with the mechanism to respond to what many would see as an age old problem, through an innovative solution.

Funding difficulties also has resulted in a higher number of students being paid minimum wage to provide basic services in the library, similar to a traineeship type position in Australia.

Recommendation 15: Technology upgrades should be made throughout the library network, incorporating AV responsibility and with a view to reducing the reliance on a print based collection, that becomes obsolete within 3-5 years Funding should be redirected from the area of print based acquisition into technology resources.

3.8 Washington State University

I visited with the distance education centre at the Washington State University, and interviewed Dr. Judith Frey, Director of Client Relations (handbooks available from S.D. Baker).

The entire staffing and resources for the unit are funded on a cost recovery basis, with only a small proportion of funding allocated for the evening part-time units of study.

Washington State University has provided print based distance education programmes, primarily for state residents, since 1915. The approach taken is to offer a selection of undergraduate units and a range of professional certificate short courses as part of a continuing education strategy.

Interestingly, the university does not offer a complete undergraduate course through distance education. The most credit a student will achieve through distance learning is 66.6% of a degree, the remaining 33.3% has to be achieved via traditional classroom delivery.

This philosophy is currently under review as the concept of what constitutes traditional classroom teaching is continuously becoming blurred.

The courses are delivered primarily through print based material (study guides with an associated text), with some videotape, and each student is strongly encouraged to participate in a study group with other students.

During the last two years, there has been extensive upgrading of the communication system. As a result students are now issued with an email address on enrolment and are able to make contact either via email or voice mail. The end result has been a higher level of student retention.

3.9 Seattle Vocational Institute

Seattle Vocational Institute is a campus of the Seattle Central Community College, and is the smallest member of the Seattle Community College District. Its mission is to provide basic skills and vocational and workforce training opportunities to culturally diverse and both economically and educationally under-served populations in the inner city. The competency-based, short-term programs are offered in attempt to lead to jobs with a future, personal achievements and educational advancement. The institute collaborates with other campuses in the Seattle Community College District, and with business, labour, government and community groups (refer Appendix R).

The institute conducts assessment tests every Monday and Wednesday for applicants, as well as an induction to the institute for students enrolling in a program on a rolling start basis. The programs are not apprentice courses, but pre-vocational certificates.

The institute offers programs to 430 FTE students (small number by comparison with the other colleges) in the business computer applications, allied health, technical and basic adult curriculum areas. Recognition for prior learning and credit for workplace skills are available and cost no more than the standard enrolment costs for the equivalent college credit.

3.10 Seattle Central Community College

This college is the second largest institution of higher education in the state of Washington. It is located a short distance from downtown Seattle. The institution is responsible for 72% of the immigrant population enrolled in King County, accounts for 25% of all incoming students at the University of Washington and works with 750 representatives of technical advisory committees to ensure that programs are current in preparing students for work and community life (handbook held by S.D. Baker).

President Dr. Charles Mitchell has negotiated international agreements for student and staff exchanges with a number of institutions, including RMIT in Melbourne, as a means for expanding the college's global network and the outlook of students and staff.

The college has a Foundation comprising of a volunteer board of 25 of Seattle's most prominent business and civic leaders. Board members actively seek funding for activities which are not met by state or federal bodies. The three primary areas of concern for the Foundation are tutoring assistance, scholarships and child care scholarship fund.

The college offers distance learning opportunities for students who are unable to attend the college due to lack of transport and/or work or family commitments. Programs are facilitated through the Centre for Educational Telecommunications, the mission of which is to develop and offer a variety of distance learning approaches using telecourses, video cassette, audio cassette and internet courses.

The courses are offered according to a quarterly schedule and students are expected to meet the same timelines as the more traditional student.

3.11 CANADA - Province of British Columbia 15 May - 5 June 1997

3.12 Malaspina University College (MUC)

Malaspina was established 60 years ago as a vocational college on Vancouver Island North Island Community College, predominantly providing mechanical trade programs to support the once lucrative lumber milling industry.

Malaspina offers programs from certificate level to degree level. The vocational area conducts courses in metal fabrication, heavy diesel, automotive smash repair, hairdressing, office administration, cooking and pastrymaking (<http://www.mala.bc.ca/>).

Today, as a university college, Malaspina caters for the communities of Nanaimo, Duncan, Courtney and Port Alberni on Vancouver Island. It receives a one off payment from the Ministry of British Columbia of \$200 000-00 in recognition of their isolation and the extra cost burden to their infrastructure through duplication of staffing in the administration areas.

The college caters for in excess of 6 500 full-time students, with a further enrolment of 20 000 students in Community Education courses. It has an international student base of 200 mainstream students and is moving into contract training for business and industry as a mechanism for augmenting its operating budget.

Mr. Jack Doan, the Dean of Instruction, Applied Programs hosted my stay, as well as a visit from the Ms. Leura Cathcart, Manager of VET at the Open Learning Institute in Queensland, to the University College, providing me with a college vehicle during my entire stay in British Columbia to visit with other institutions with whom he had pre-arranged appointments and meetings for me.

3.12.1 International Activities

MUC has formal agreements with institutions in Thailand, Texas USA, Mexico and New Zealand and draws many students from Asia, USA, Europe, South America and

Africa. It caters for total of 200 international students on campus (refer International Programs Annual Report 1996/97 - Appendix S)).

MUC has established an independent school called the International Collegiate which offers a year 11 and 12 program to students. Predominantly the 90 students currently enrolled come from pacific rim countries. Ideally, the college is hoping to secure the on-going enrolment of these students into their mainstream programs after graduation from year 12.

Other international activities are fostered through vacation programs that feature English as a Second Language as the main attraction and incorporate homestay opportunities with people on Vancouver Island.

After speaking with Masako Fukawa, Principal of the Malaspina International Collegiate and Theresa Meyer, Coordinator International Language Programs, it was quite clear that as an organisation TAFE Queensland has to increase its effort substantially in order to compete in the global market place. This means that we need to invest in people building relationships with institutions in other countries, where the initial activity may simply be hosting visits by other students or staff.

The building of international relationships is paramount to the success of MUC, as the funding from this endeavour creates additional places for domestic students. The added benefit to the institution in developing a culture that recognises the global marketplace in which we compete is priceless. There is also the professional development opportunities that such alliances present for staff.

There is a willingness from MUC to build on our initial contact and to investigate further opportunities for staff and students at both organisations to work together.

Recommendation 16: Clearly the successes of the institutions visited on this study tour indicates TAFE Queensland needs to increase the scope of the debate across the organisation on how we enter into the international arena.

3.12.2 University College Foundation

Malaspina has an innovative and very successful range of activities to raise funds for the improvement of facilities and to support student learning. The Foundation is one such initiative and comprises a 26 member Board of prominent members of the communities served by Malaspina's four campuses.

The board members give their time and expertise to raise funds for what is referred to as 'Tools for Learning' through major gifts, planned giving and special events. The target of \$2.5 CA million dollars was established at the campaign launch in February 1995 and to February 1997 they have raised \$2.4 CA million. Activities include an art union with a first prize of a house built by students; a Fund Run for Learning; golf tournaments and a Festival of Trees at Christmas.

The foundation also play a major role in securing sponsorships for scholarships and awards for students enrolled at Malaspina. To date they have funded in excess of 150

scholarships and bursaries, ranging from \$100-00 per year for some students to full tuition of \$750-00 CA per semester for other students.

Recommendation 17: TAFE Queensland should consider adopting similar funding incentives to acquiring funding for specific areas of teaching & learning that do not receive readily identifiable funding allocations. Insomuch, setting up such a foundation would promote community support and awareness of TAFE programs that are in essence more of a community service contribution.

3.12.4 Centre for Training and Development

Dan Wood is the Director of the Centre, which is mandated to coordinate and develop contract activity for the MUC. Clients include government, business, industry, professional association or non-profit organisation.

The centre provides training needs analysis, development of strategic plans, assessment of costs and benefits of training, evaluation of training results and sourcing of funds from government and accessing specialist staff in the delivery training and development programs.

The most successful commercial output is coming from the campus at Cowichan and is mainly being achieved because of a desire to increase program offerings and to meet the demands in the local community.

Compared to our environment in Australia the commercial activities at Malaspina are conservative. However, Dan recognises the need to ensure the organisation continues to change and adapt to the reduction in government funding as a key issue to ensure that the organisation is well placed for the future.

3.13 North Island Community College

I met with Bruce Meldrum, Dean of Applied Programs and with Ray Hummel, Manager Industrial Mobile Training, at the Campbell River Campus. The college was established in 1975 with a small population base and opted for an open learning methodology as the means of achieving the college's mission, as well as overcoming the problem of low enrolment numbers for classes from a small community population base.

The college services a population of approximately 150 000 people who are mainly employed in copper mining, logging, pulp and paper making, fishing and tourism across the northern region of Vancouver Island. The population density is low and widely spread. throughout the region.

In 1977, the college moved to a mobile training concept to reach the dispersed population on the west coast of Vancouver Island. The program proved successful and another mobile unit was acquired in 1979 to service the northern region of the island.

Today the unit works in partnership with local colleges and institutes or specific companies to respond quickly to training demands. The unit travels throughout the

province conducting 'hands-on' training for engineering trades, hydraulics, forestry and programmable logic controllers (refer Appendix U) for companies such as B.H.P. Minerals, Westcoast Energy and B.C. Hydro. The unit brings in approximately \$2 000 000-00 CA annually, realising about \$500 000 CA for the college after costs.

Complementing the mobile training units is the delivery of 64 courses through a collaboration with the Open Learning Agency in Vancouver. This further enhances the college's reputation as an innovator in open learning. Selected programs are supported via video conferencing to allow interaction between learners and to broaden opportunities otherwise not available.

Another initiative that is due for implementation in September 1997, is the opening of a new facility at Campbell River that will be a combined college and secondary school catering for up to 1 600 students.

Teaching staff have been involved in collective bargaining since 1992, and teach 28 hours per week, with an annual contact target of 1236 hours. The normal working week is based on five consecutive days from Monday to Saturday. Teachers with responsibility for managing students enrolled in an open learning program are given 0.5 hour recognition for teaching for every six students.

Similar to Malaspina University College, North Island College receives a \$250 000 CA grant each year from the provincial government towards the operating costs for an institution that is based in remote and distant communities.

This scenario of providing services in remote and widely dispersed communities has a particular significance as it reflects the similar environment of the Southern Queensland Institute of TAFE.

Recommendation 18: Funding supplied to offset the effect of duplication of personnel required to provide a service to communities in rural locations throughout Queensland would be worth considering by the purchaser of training in Queensland.

3.14 University of British Columbia

Dr. Tony Bates hosted both me and Ms. Leaura Cathcart from the Open Learning Institute at the University of British Columbia. This was a prearranged visit after meeting Dr. Bates in Brisbane in December 1996, where all of us presented papers on open learning at the Open Learning Network International Conference.

Dr. Bates is recognised throughout BC as one of the leading identities involved with open learning. He is originally from the Open University in the UK and prior to joining UBC was with the Open Learning Agency in Vancouver.

He has been employed by the UBC to assist in developing a university wide culture that encompasses open learning as a key strategy in order for the university to meet the global challenges that it sees in the future for the institution.

UBC is the oldest university in BC. It employs over 7 500 staff (1954 faculty) and has a student population in excess of 30 000 people, enrolled in 12 faculties with courses conducted all year round. Given the history of the institution, there is no doubting the need to initiate some non-traditional approaches to teaching and learning at UBC. This is a serious concern for the university as it attempts to move into the 21st century. (more details are contained in a Report prepared by Leaura Cathcart for OLI)

3.15 Open Learning Agency

Bob Lajoie, Manager International provided me with a wealth of information on the OLA (refer Appendix V) and offered to work with TAFE or SQIT to enhance our ability to deliver programs through an open format. OLA itself is a publicly funded post secondary educational institution that offers a variety of certificate, diploma and degree programmes throughout British Columbia and beyond (<http://www.ola.bc.ca>).

The centre is also a leader in research in the field of open learning. The materials are produced, stored and dispatched from this centre to destinations throughout the world.

Programs are offered in the Arts, Business and Administrative Studies, Fine and Performing Arts, Health and Human Services, Science and Technology and Adult Basic Education (career and college prep). The OLA provides partnering arrangements with a number of colleges and university throughout Canada and other parts of the world.

All courses are supported in some part by print materials with assignments and final examinations for some courses and/or completion of a final project to satisfy assessment requirements in others.

OLA defines a student's learning pattern in either of two ways; independent study or on-line learning.

The first option refers to a learning model based on self-paced study within a standard completion time utilising tutorial support, video and audio cassettes, television broadcasts and teleconferences.

On-line courses enables students to undertake their course, send and receive assignments, work with a tutor, and communicate with other students, all on a personal computer.

Recommendation 19: The alliances and services provided by OLA provides a clear mandate for our own Open Learning Institute. The market place is global and the best way for TAFE to compete is by working with other providers of open and distance learning, such as USQ and with the other TAFE institutes in more collaborative manner.

3.16 British Columbia Institute of Technology

While at the BCIT, I had the opportunity to meet with Ms. Kathleen Bach, Director of Health. Kathleen is recognised through her involvement in delivering the Advanced Diploma in Health Services in a format to suit the client.

In this particular case, clients wanted to undertake the learning opportunity on a part time basis and located in the local community to complement their professional development as health practitioners.

To accommodate the request, the faculty designed a self-paced distance education program supported by texts, pamphlets, journal articles, audio/video tapes with telephone tutorials. This approach was referred to by BCIT as Guided Learning.

A further development in the delivery of this practical program was the notion of a challenge course. This approach offered/available to students with considerable experience in the field. They pay reduced tuition fee for a course outline, course objectives for each module, a list of references and sample examinations. There is no tutoring or text provided and students are expected to review the material and use whatever resources are available to prepare for the final examination.

The emphasis is on allowing students to assess their own theoretical competence in a particular area, with a view to choosing an appropriate route to successful completion. If they discover that they require more support than originally thought, they have the opportunity to transfer into the full course on payment of the remaining tuition fees.

Further developments have continued to refine and improve the access and time based methodology of traditional programs with a greater emphasis on clinical delivery and assessment.

The key to the success from Kathleen Bach's viewpoint, has been the focus on meeting the needs of the student and responding to student feedback in a manner that demonstrates the important role students have in managing their own learning environment.

The success of this program at BCIT is the result of having met these challenges and many more.

The program is certainly an example of what can be achieved and is something that TAFE needs to strive towards if we are to remain the leader in the field of vocational education and training.

3.17 Centre for Curriculum, Transfer and Technology

While at BCIT, I was fortunate to meet with Mr. Keith Dunbar from the Centre for Curriculum, Transfer and Technology in Victoria, Vancouver Island.

This centre was established by the Ministry of Education, Skills and Training in 1996 as a catalyst for educational change. Its focus is to help address the changing learning needs of students in BC's colleges, university colleges and institutes.

The mandate for the centre is to:

- facilitate the development of learner-centred, outcomes-based, provincial curriculum standards;
- ensure the learner is able to transfer efficiently and progress through the system to acquire a recognised credential; and

- provide advice to system partners on the development of educational technology programming.

Examples of the work of the centre are its sponsorship of projects and partnerships to encourage discussion and debate on key issues in post secondary education; its establishment of support networks for reform minded individuals in the system; its recognition of best practice and provision of professional development programs.

The concept is supported by the colleges, university-colleges in British Columbia as it is recognising some innovative developments in the delivery of education and training and providing opportunities for educators to share their learning experiences with colleagues.

Many of the activities initiated through the Centre for Curriculum, Transfer and Technology is similar to spasmodic efforts by TAFE Curriculum Consortium and the TAFE Queensland Special Projects group in Brisbane.

Recommendation 20: TAFE Queensland should be rationalising consortia and special projects into one centre that can provide clear leadership and one stop shop support to the teaching and learning process.

4.0 CONCLUSION

The study tour clearly demonstrated and reinforced the extent of the global market in which we are operating and the need to develop strategies and alliances that will provide TAFE Queensland with a competitive advantage.

This notion was reinforced at the annual conference at Anaheim with representatives from across the country. The issues that they were confronting the American community colleges were similar to the Australian scene. Issues such as greater competition from private providers, reduced government funding, empowering work teams, developing learning organisation, focusing on the needs of learners, open and distance education and on-line delivery.

In the state of Oregon there was examples of a desire to adopt a collaborative and cooperative relationship between the community colleges, particularly in the area of distance and on-line delivery. The articulation arrangements with universities was a major initiative that the American institutions have invested a great deal of emphasis and provides people with numerous opportunities for people undertaking general and vocation education.

The colleges demonstrated through their structures a commitment to student services and learning support as a key strategy to maintaining high retention rates and to encourage people to participate in life long learning. This issue does have implications for TAFE institutes and is an issue that will require a response in the very near future.

The other significant agenda was commitment to internationalising the curriculum in the community colleges and the commitment given to attracting international students

to colleges in both Canada and America. The government is supporting the involvement in colleges in offshore ventures as a means of enhancing international business arrangements and each institution is developing different strategies to this agenda. In comparison the arrangement in Queensland is relatively restrictive as institutes are not encouraged to develop their own image overseas and it contradicts the strategies that I witnessed in Canada and America.

Flexible and distance education is facilitated through a high level of technological infrastructure that utilises interactive television, online delivery, videos, teletutorials, CD-roms and print based learning resources. Once again, the need for greater cooperation and collaboration between institutions in planning who will offer what, as well as between work units to ensure that student learning and administrative needs are managed is crucial to offering a successful flexible program to students. Policies have to be developed in conjunction with the delivery strategies to ensure that enrolment, library support, student services, learning support and information technology is aligned to the delivery methodology.

Appendix 23

Selection Panel
Flexible Learning Leaders
Canberra Institute of Technology
GPO Box 826
Canberra ACT 2601

Dear Sir/Madam

On behalf of the Brisbane School of Distance Education (BSDE) I wish to endorse the application of Mr Paul XXXX for a Flexible Learning Leaders scholarship in 2004.

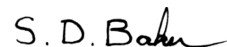
Paul has demonstrated a significant interest and leadership in the facilitation of school-based apprenticeships and traineeships across the state of Queensland, as well as the VET in school agenda. The nature of students enrolled through the BSDE has necessitated a range of flexible and innovative approaches to be adopted in collaboration with students, teachers, industry representatives and community agencies.

The experience and knowledge that he will gain from the unique experiences, mentors and approaches will have a direct impact on how a distributed and flexible model of learning can enhance and improve outcomes for school aged adolescents/adults. In particular, the opportunity for Paul to personally engage with practise that incorporates asynchronous, elearning solutions will be of enormous benefit as he works with teachers and heads of department within BSDE to improve our ability to respond to learners in a range of situations.

To my knowledge this application represents a new field of endeavour within the FLL program and would provide information and application from a totally different pedagogical context. The strong networks that exist through Schools of Distance Education will also benefit as the Australasian Association of Distance Education provides a number of forums and links throughout Australasia.

Thankyou for consideration of Paul's application and I look forward to supporting him in this process should you need to contact me further.

Yours sincerely



Shayne Baker

Appendix 24

Learnscope Project Plan 2004

1. Project Description

The purpose of the project will be to:

Engage the key teaching staff within Brisbane School of Distance Education (BSDE) delivering education and training programs in a professional development initiative to increase their capacity to adopt elearning as a strategy to provide learning through a blended model.

Enable BSDE teaching personnel to build capacity that will sustain the effective development of flexible learning through a range of proven strategies from the wider education market.

Foster the establishment of communities of practice to enable teaching personnel to share information, teaching and learning strategies and resources in the provision of flexible learning approaches in education & training.

Develop an awareness and appreciation of the benefits of blended learning and the range of support mechanisms that are available to support practitioners.

Establish a staff network of teaching practitioners that provide blended and flexible learning programs with ongoing support and communication within their own faculty and others within the institution.

2. Background

Policy developments associated with the Education & Training Reform for the Future (ETRF) to encourage young people to be either 'earning or learning' is creating new demands from young people about how, where, when and what they learn.

The department is encouraging teaching staff to adopt fresh approaches that incorporate information and communication technology (ICT) and there is support services and infrastructure available to assist in this endeavour. For example, the Learning Place provides a portal for staff to communicate, undertake elearning training, and to provide programs for students.

The challenge is to increase staff awareness and access to the existing resources and support mechanisms that have been developed through the Australian Flexible Learning Framework (AFL) that is available to the 180 teaching staff within BSDE.

3. Project Methodology

The key component would be to increase the level of awareness to all qualified teaching personnel of the level of products and services that are available to assist in the adoption of flexible and blended learning in their own teaching practice

Participants would be involved in developing a vision and an elearning strategy to contribute to shaping the school's Strategic Plan.

Develop strategies and links to existing professional development infrastructure within BSDE and the wider education and training arena, such as Learnscope, Re-framing the Future, Quality Teaching Program and the Learning Place.

Encourage and support the establishment of a community of elearning champions within BSDE who can contribute and lead the direction of elearning across their respective faculties. The network would be supported by the establishment of a suitable domain allocation within the Learning Place.

Project Management

The will be overseen by BSDE's Head of Learning & Technology through a committee comprising departmental representatives, Learning Place staff, Qld Learnscope Manager.

Project Sponsor: Shayne Baker, Principal Brisbane School of Distance Education

Project Team:

Shayne Baker, Principal Brisbane School of Distance Education

Qld Learnscope Manager

Manager, The Learning Place

ETRF Coordinator

Geebung/Stafford District

BSDE Head of Learning & Technology

Appendix 25

Learnscope Project Plan

1. PROJECT NAME:

'The Fires are Burning'

2. PROJECT DESCRIPTION

Significant expertise, knowledge and products have been developed through the application of the Flexible Learning Framework and the strategies that have been supported over a number of years.

The project will showcase the use of new and emerging ICTs in providing blended and a range of flexible learning opportunities for VET students across the state.

The workshops will provide a significant foundation from which to build on as schools become more receptive and involved in the take up of blended learning initiatives.

The need to upskill the teaching personnel in the use of ICT's in the flexible provision and access to VET outcomes are consistent with the Education and Training Reform for the Future (ETRF).

Significant expertise, knowledge and products have been developed through the application of the Flexible Learning Framework and the strategies that have been supported over a number of years.

The concept to showcase these achievements with some workshops on implementation will provide a significant foundation from which to build on as schools become more receptive and involved in the take up of blended learning initiatives.

Each participant will be expected to create a learning and development strategy for increasing awareness and understanding of flexible learning options either at their local school or district level.

3. BACKGROUND

Education Queensland (EQ) has established a reputation as the leading provider of School Based Apprenticeships and Traineeships (SAT) and Vet in Schools in Australia.

Most school districts have appropriately qualified and dedicated staff involved in the coordination and development of VET programs and there is strong links with New Apprenticeship Companies (NAC), Registered Training Organisations (RTO), industry and community groups.

Policy developments associated with the Education & Training Reform for the Future (ETRF) to encourage young people to be either 'earning or learning' is creating new demands from young people about how, where, when and what they learn.

The department is encouraging teaching staff to adopt fresh approaches that incorporate information and communication technology (ICT) and there is support services and infrastructure available to assist in this endeavour. For example, the Learning Place provides a portal for staff to communicate, undertake e-learning training, and to provide programs for students.

The project will use a multi modal approach to increase staff awareness and access to the existing flexible learning resources and support mechanisms that have been developed through the Learning Place and the Australian Flexible Learning Framework.

The need to upskill the teaching personnel in the use of ICT's in the flexible provision and access to VET outcomes is consistent with the Education and Training Reform for the Future (ETRF).

4. OBJECTIVE

The project will:

- Upskill key Education Queensland (EQ) teaching staff delivering vocational education and training (VET) in Schools to increase their capacity to adopt elearning as a strategy to provide wider learning options for their students through a blended model.
- Build capacity in EQ staff that will promote and support the effective development of flexible learning options for use in their schools.
- Create an EQ specific professional learning community to enable teaching personnel to share information, teaching and learning strategies and resources in the provision of flexible learning approaches for the VET in School agenda.
- Develop an awareness and appreciation of the benefits of blended learning and the range of support mechanisms that are available to support teaching and learning.
- Establish and support a state network of VET in School practitioners.

5. PROJECT MANAGEMENT

The Project Management team has collaboratively formed a agreed set of communication protocols and processes.

Each team member will operate via a set of clearly defined protocols through the Project Manager working for and on behalf of the team. Each team member has a defined area of responsibility as per project plan.

Each member reports directly to the Project Manager and provides updates of progress to the team through the regular team meetings.

All correspondence will be coordinated through the Project Manager with support from Project team members.

Regular team meetings (via teleconference and face to face) will be conducted fortnightly or as need requires.

The project budget will be managed through the Brisbane School of Distance Education School cost code. These funds will be subject to Education Queensland's financial and accounting protocols as well as compliance and audit requirements.

Education Queensland's auditor at the completion of this project will audit the project funds.

The Project Manager will update the Project Sponsor and other EQ stakeholders (ETRF team etc) through regularly scheduled meetings.

PEOPLE, ROLES AND RESPONSIBILITIES

a) *Project Participants.*

Name	Position Title	Email Address	Organisation/Faculty
Shayne Baker	Principal	sbake16@eq.edu.au	Brisbane School of Distance Education - Education Queensland
Anne Marie	ETRF Advisor	anne-marie.kelly@qed.qld.gov.au	Stafford District Office – Education Queensland
Laurie Campbell	Director	laurie.campbell@qed.qld.gov.au	ICT Learning Innovation Centre – Education Queensland
Gary Barnes	Assistant Director General – Learning Strategy	gary.barnes@qed.qld.gov.au	Office of State Schooling
Teaching representatives			Representing 36 EQ districts

7. TEAM LEARNING PLAN

The learning model will use the District based learning and development framework as the overarching organising vehicle. The strategy will focus on developing capacity via a localised learning model to influence at the 'grass roots level'. In addition through advocacy to the Assistant Director-General Learning Strategy and the ETRF team influence Education Queensland strategic approach by building understanding of the use and application of elearning to improve flexible learning options for the targeted student cohort. The strategy has been designed to influence through a 'bottom up – top down' approach.

A cohesive PD project that clearly integrates e-learning approaches into teaching and learning.

The purpose of the project is to bring key 'VET in School' leaders together to participate in an action learning model activity that will incorporate their individual knowledge of VET with proven experts in blended and E Learning.

They will also be exposed to a range of support services and learning resources that is available through the Flexible Learning Framework, as well as other providers of ICT solutions.

The group of 50 state leaders will then participate in a planning initiative that they can instigate into their various networks and professional bodies throughout the state.

The target group is key people throughout the state who have a demonstrated capacity to lead the VET agenda on behalf of Education Queensland (EQ). The basis for selecting this group is that they are part of district networks with other teachers and department heads involved in the provision of VET.

The challenge is to provide quality learning opportunities that can assist young people 15 –17 years of age to remain in learning or at least better prepare them to engage in some form of earning.

The model described is centred round the role and the networks that currently exist within the EQ, teachers, heads of departments, district support personnel, the Learning Place, Australian Flexible Learning Framework.

As such, it does not require any extra resources or infrastructure to be developed above and beyond the capabilities that are in place. This is a key strategy in determining and realising benefits for the entire education department and epitomises the benefits of a sound work place learning model.

A survey will be forwarded to each participant and their Executive Director Schools prior to the scheduled learning and development workshop. The survey will seek to clarify what activity in flexible learning is currently being offered in schools within each district and identify area of understanding and activity that may be utilised to leverage the broader strategy. The results of this strategy will be compiled with the exit data from the workshop to provide an overview of what is currently happening in flexible learning across the state.

The program that has been outlined will bring together recognised leaders from the various educational and VET world together to share and learn with a common goal of providing quality flexible learning solutions for young Queenslanders.

It will also encourage further uptake of the products and services that are available throughout both sectors and ensure that the knowledge gained is more about the pedagogy and the needs of learners, not so much about whether it came from a VET provider or a school.

A key strength of the model is the fact that there is real potential to impact on literally hundreds of teachers involved in 'VET in Schools' and School Based Apprenticeships and Traineeships.

On numbers alone this represents substantial 'value for money', and the real measure of the success of the program will be the demand for greater access to the products and services from the Australian Flexible Learning Framework.

8. REPORTING GUIDELINES

Reporting Activity	Who will report?	When will they report?
Regular meetings	All team members	fortnightly
Workshop overview	Laurie Campbell	August 2004
Virtual Learning Community website	Anne Marie??	July 2004

<i>Reporting against project expenditure – acquittal of project funds</i>	Shayne Baker	October 2004
<i>A report/critique/model of your professional development activity.</i>	Shayne Baker	November 2004???

9. BUDGET

<i>Budget Item</i>	Unit cost	No. of Units	Estimated cost	EQ Contra
Brisbane based conference and workshop – 4 days planning & preparation	\$1500	4		\$6000
Facilitated workshops (3 people) Facilitators travel & accommodation	\$700	3	\$2100	
Conference convenor	\$1000	6	\$6000	
Venue – meeting rooms, equipment	\$2940		\$2940	
Venue catering (lunch, morning/afternoon tea) 50 people x 6 x \$25pp	\$25	6	\$7500	
Conference promotional material - invitations, development, printing, kits	\$2000	1	\$1500	
Accommodation/meals for participants from 36 districts	\$172	35	\$6000	
Travel/airfares of participants – 36 districts	\$340	36		\$12240
Project administration costs	\$2000	1		\$2000
Conference Dinner (guest speaker)	\$40	50	\$2000	
Teacher replacement costs	\$285	36		\$10260
Develop Learning Portal for Workshop participants (EQ Learning Place)	\$3000	1	\$2000	
District Presentations by representations	\$285	36	\$10260	
District Workshop participation (10 people x 36 district)	\$285	360		\$102600
Project evaluation & completion	\$500	1	\$500	
TOTAL			\$40800	\$122840

10. RISK ANALYSIS AND MANAGEMENT

10. RISK ANALYSIS AND MANAGEMENT

Risk	Probability	Impact	Risk Management Strategy
<i>Identify the risk to your project here</i>	<i>Use the scale High, Medium, Low probability.</i>	<i>How will this affect your project? Is it a showstopper or will it mean delays? What is the severity of the effect on your project?</i>	<i>How will you manage this risk? What strategies will you use to ensure this doesn't happen? If it does, what strategies will you use to minimise the impact?</i>
Key staff in districts not selected	<i>Medium</i>		Request sponsor to advocate through EDS teleconference for the selection of appropriate staff to attend. Briefing and support information distributed through networks.
Districts not supportive of flexible learning approaches	<i>Medium /Low</i>		Advocate for systemic support through ETRF and VET in Schools team. Provide clear guidelines and expectations for the district selected staff to ensure they understand the need to conduct follow-up local sessions with support from team.

11. INTERNAL MARKETING AND PROMOTION

Work with ANTA Flexible Learning Communication Project Officer to explore opportunities to promote and publish information to schools /districts.

Education Views- articles relating to workshop and professional learning community.

Posting articles and information on the Professional learning community site and links through to other PLCs.

Systemic briefings to ETRF and VET in Schools team.

11. TIMELINE

Please list all key activities, meeting dates, reporting deadlines and other milestones.

Date	Activity	Milestone
June	Advice to all schools/districts	July
July	Statewide Workshop/Forum	July
July	Professional Learning Community website operational	July Contributions to further activities
October	Complete report on outcomes	Professional development plans implementation

12. EVALUATION STRATEGY

Each Participant will be expected to complete a survey on current understanding pre and post workshop/forum.

Districts will provide current data on flexible/blended learning usage for VET in schools delivery.

Participants will be expected to present either at school or District on the flexible learning options available to schools and evaluate each session.

Two Day Forum

Forum theme: The Fires are Burning

Forum objectives: To develop a strategic plan for the development of flexible learning options in Vocational Education component of the secondary curriculum.

Target Audience: Secondary teachers who have been recognised as leaders in developing and implementing flexible learning options in the Vocational Education sector of the secondary curriculum.

DAY 1				
Time	Topic	Presenter	Coordination	Room Allocation –
9- 9.30am	Opening	Ken Smith Director General Education QLD	Shayne and Lindy	
9.30 – 10am	National strategy	Rod Arthur QLD Flexible Learning Advisory Group Member	Jodie	
10am – 10.30am	State perspective	Gary Barnes Assistant Director General Schools	Shayne	
Morning Tea -				
11am – 12.30pm	Australian Flexible Learning Framework products, resources & people – <i>what's available to you</i>	Lindy Smith & Jodie McCabe – Australian Flexible Learning Framework	Jodie	
LUNCH -				
1.30pm Afternoon tea – On the run	Case studies – 'real life' examples of flexible learning in action	1. Hendra Secondary College – Susan Smith – HOD English	Confirmed – 20 mins only	
		2. Charters Towers – John Clark	Ann- Marie/Shayne	

		3. Southbank Institute of TAFE – Lyn Ambrose	Ann-Marie/Shayne	
		4. SQIT – Case Seng	Ann-Marie/Shayne	
		5. John Paul College – Tony Carrucan	Confirmed - 20 mins only	
3.45pm	Reflect on today...	Shayne Baker Principal Brisbane School of Distance Education	Shayne	
4pm - CLOSE				
	Dinner –		Laurie Campbell	
DAY 2				
Time	Topic	Presenter	Coordination	Room Allocation & IT resource requirements
8.45am – 9.30 am	Lessons learnt so far – <i>Ed QLDs strategic direction for the future and the day ahead</i>	Shayne Baker Principal Brisbane School of Distance Education	Shayne	Auditorium Power point
Skills Development (4 x hands on workshops)				
	Flexible Learning Toolboxes	Denise Morgan QLD Toolbox Champion Australian Flexible Learning Framework	Confirmed	Workshop room 1
Alternating workshops W1: 11 - 12pm W2: 9.30 – 10.30 W3: 1 – 2pm W4: 2 – 3pm Groups of 12 - 13	Flexways	Ann-Marie Kelly Project Officer Education Qld	Accepted & actioned	Workshop room 2
Alternating workshops W1: 9.30 – 10.30	The Learning Place	Gary Francis Co-ordinator Learning Place Education Qld	Shayne	Workshop room 3

W2: 11 - 12pm W3: 1 – 2pm W4: 2 – 3pm Groups of 12 - 13				
Alternating workshops W1: 9.30 – 10.30 W2: 11 - 12pm W3: 1 – 2pm W4: 2 – 3pm Groups of 12 - 13	Online Communities	Rhonda Appo & Jodie McCabe Australian Flexible Learning Framework	Jodie	Workshop room 4
Morning tea: 10.30 – 10.50am Lunch: 12 – 1pm Afternoon tea:				
3.00pm	Closing Address Where to from here – <i>your 'Leaders' role from here</i>	Shayne Baker Principal Brisbane School of Distance Education	Shayne	Workshop room 1
4.00pm Close				

Appendix 26

**Philippine Life Saving Society
Great Titan Sports Festival Bacolod City
9 – 16 April 2012**

The RLSSA responded to a request from the Philippine Life Saving Association late in 2011 to support the 2nd Great Titan Sports Festival with representatives to be involved in officiating, competing and conducting training for officials and children in Swim & Survive.

The lifesaving event was timed to coincide with the a major agricultural event that brought together the various regional localities to showcase and sell their respective produce in one location (similar to the range of agricultural shows that are held in Australia).

The lifesaving event also brought participants from throughout the three regional of Luzon, Visayas & Mindanao of the Philippines as well as a delegation from Korea. The event was launched with a Thanksgiving Mass, followed by a reception by the Governor, Alfredo Maranon Jr.

The initial activity was a two-day officials workshop was facilitated by Roz Grey for 50 participants and included Basic Understanding of the General Principles; General event requirements; and Technical Principles.

From the second day a series of three days of community Swim & Survive sessions began with participants rotating through 5 different activity stations to provide instruction on flotation and sculling, using a PFD, entries & exists, CPR, signalling for help. In all over 400 hundred children participated in this drowning prevention strategy.



Great Titan Welcome – Bacolod 2012

The competition in the pool commenced on Wednesday the 11 April in very hot, humid conditions with teams from regions throughout the Philippines, with Roz Grey and Sing Ma providing their expertise as officials and Messrs Baker, McCrindle and Veal assisted with equipment handling and some on pool instruction for the range of competitors. The program was based on providing every competitor with an opportunity to experience the demands of pool lifesaving as well provide finalists for the 2nd day of the Great Titan Lifesaving Festival.

The competition on the 2nd day included an international invitational with Blake McCrindle and Christopher Veal competing in events on a rotation basis with Korean and Filipino lifesavers. Both of our representatives were able to highlight the fitness levels, techniques and skills required to achieve the higher-level standards of the sport of pool lifesaving.

Also occurring on Thursday was a Symposium on Drowning Prevention facilitated by the Philippine Lifesaving Society (PLS) for resort owners and provincial/local government representatives and Shayne Baker presented a session on Collaboration on Drowning Prevention. One of the most positive presentations came from one of the local councillors who detailed the Drowning Prevention Plans for the entire region of Negros Occidental 2012 – 2015.

Following the pool competition the event then transferred to the beach of Sipalay (4 hours drive to the south) for the PLS Great Titan event. Blake & Chris provided some coaching tips on beach entry, swimming and beach events. Both athletes competed in the beach events and Blake took gold in the Run Swim Run.

At the request of the PLS Shayne Baker, Roz Grey, Blake McCrindle facilitated a Water Safety Workshop for faculty members from the Technological University of the Philippines, Visayas and Shayne also made a presentation on Drowning Prevention to the Sipalay resort and hotel owners from the area.



Swim & Survive – Bacolod, Philippines 2012

The media interest and level of queries from many agencies was of the highest order and the executive of the Philippines Lifesaving Society were genuinely thrilled with the outcomes.

The representatives of RLSSA contributed their expertise and knowledge without any hesitation and their efforts and achievements should be commended as it created a great deal of enthusiasm, interest in drowning in the Philippines.

Regards

Shayne Baker

Shayne Baker OAM
National Education & Training Advisor
Royal Life Saving Society Australia

Appendix 27



NATIONAL EDUCATION & TRAINING ADVISER

POSITION STATEMENT

Person	Mr Shayne Baker (incumbent appointed 2009)
Position	National Education & Training Adviser
Responsible to	National Council with liaison through Chief Executive Officer
Role Direction	The National Education & Training Adviser will provide advice and leadership to the organisation on education and training issues relating to lifesaving and water safety.
Role Details	<ul style="list-style-type: none"> • Provide education and training related advice to the National Council, National Advisers, National Branch staff and, where appropriate, State Branch representatives. • Assist in the development of education and training related policy and practice • Liaise with RLSSA National Branch staff particularly in the Curriculum, Education and Training areas of responsibility. • Monitor National Policies and ensure that RLSSA is provided with the most up to date information from the education/training perspective • Represent the RLSSA on the National Service Industries Skills Council. • Represent the RLSSA on the International Life Saving Federation (ILS) Education Committee • Represent the RLSSA in the development of the Australian National Curriculum K-12 Projects and other national and international education/training related committees as required • Attend, present and provide input into relevant seminars, conferences and workshops. This includes events conducted by RLSSA and other groups within Australia and overseas
Reporting	A written report will be provided to each annual meeting of National Council
Appointment	The appointment of National Education & Training Adviser is made for a three-year period commencing following the Annual General Meeting.